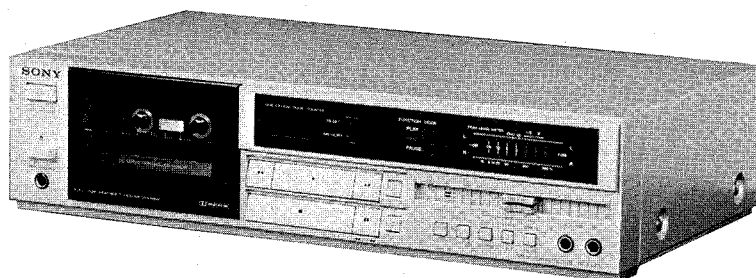


# TC-FX370

## SERVICE MANUAL

*AEP Model*



'Dolby' and the double-D symbol are the trade marks of Dolby Laboratories Licensing Corporation. Noise reduction system manufactured under license from Dolby Laboratories Licensing Corporation.

SILVER MODEL SHOWN.

### SPECIFICATIONS

Tape Transport Mechanism Type	TCM-150V7
-------------------------------	-----------

#### Recording system

4-track 2-channel stereo

#### Fast-forward and rewind time

Approx. 100 sec. (with C-60 cassette)


#### Bias frequency

105 kHz


#### Signal-to-noise ratio (NAB, at peak level)

Cassette	Dolby NR switch	OFF	B-TYPE ON	C-TYPE ON
TYPE IV (Sony METAL-ES)		58 dB	65 dB	71 dB
TYPE II (Sony UCX)		56 dB	63 dB	69 dB
TYPE I (Sony HF-S)		54 dB	61 dB	67 dB

#### SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY SHADING AND MARK  ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

#### ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFIÉS PAR UNE TRAME ET UNE MARQUE  SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

#### Total harmonic distortion

1.0% (with Sony METAL-ES cassette)

#### Frequency response

##### DOLBY NR OFF

- With TYPE IV cassette (Sony METAL-ES)
  - 20 - 17,000 Hz
  - 30 - 16,000 Hz ( $\pm 3$  dB)
  - 30 - 13,000 Hz ( $\pm 3$  dB, 0 VU recording)
  - 30 - 16,000 Hz (DIN)
- With TYPE II cassette (Sony UCX)
  - 20 - 17,000 Hz
  - 30 - 14,000 Hz ( $\pm 3$  dB)
  - 30 - 14,000 Hz (DIN)
- With TYPE I cassette (Sony HF-S)
  - 20 - 16,000 Hz
  - 30 - 13,000 Hz (DIN)

#### Wow and flutter

0.05% WRMS (NAB)  
 $\pm 0.14\%$  (DIN)

#### Inputs

Microphone inputs (phone jacks)  
Sensitivity 0.25 mV ( $-70$  dB)  
For a low impedance microphone  
Line inputs (phono jacks)  
Sensitivity 77.5 mV ( $-20$  dB)  
Input impedance 47 kilohms

#### Outputs

Line outputs (phono jacks)  
Output level 0.44 V ( $-5$  dB) at load impedance 4.7 kilohms  
Load impedance over 10 kilohms  
Headphone output (stereo phone jack)  
Output level  $-28$  dB at a load impedance of 8 ohms

— Continued on next page —



STEREO CASSETTE DECK  
**SONY**®

TC

# TC-FX370

## General

Power requirements	220 V ac, 50/60 Hz (240 V ac adjustable by authorized Sony personnel)
Power consumption	15 watts
Dimensions	Approx. 430 x 105 x 245 mm (w/h/d) (17 x 4¼ x 9¾ inches) including projecting parts and controls
Weight	Approx. 3.6 kg (7 lbs 15 oz)

While the information given is correct at the time of printing, small production changes in the course of our company's policy of improvement through research and design might not necessarily be indicated in the specifications. We would ask you to check with your appointed Sony dealer if clarification on any point is required.

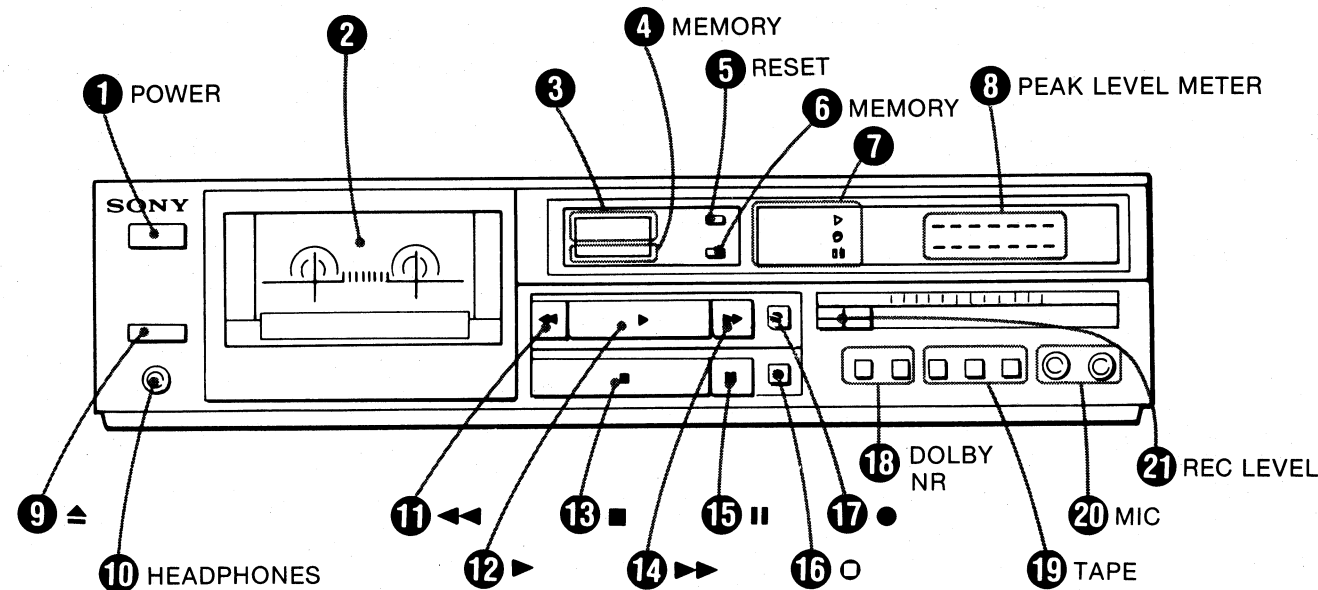
## Note

This appliance conforms with EEC Directives 76/889 and 82/499 regarding interference suppression.

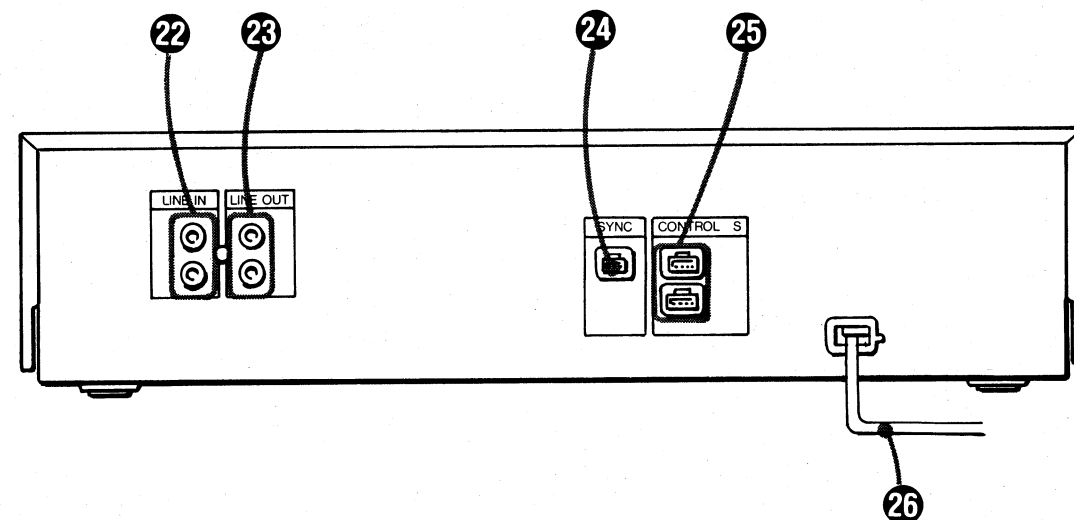
## SECTION 1 OUTLINE

### 1-1. FUNCTION OF CONTROLS

**A**



**B**



Each number in the text is keyed to that of the illustrations on pages 3.

Front panel (Fig. A)

1 POWER switch

2 Cassette holder

3 TAPE COUNTER and RESET button

The tape counter provides a numerical reference point while recording which can be used to index a recorded cassette. To reset to zero, press the RESET button.

7 Function indicators

8 PEAK LEVEL METERS

These meters show the peak input level of each channel during recording, and recorded levels in the playback mode.

9 EJECT button

Press this button to open the cassette holder.

10 HEADPHONES jack (stereo phone jack)

11 REWIND key

Press this key to advance the tape rapidly to the left. It is also used for the auto play and review functions.

12 PLAY key

Press this key to playback the cassette. To record, press this key while holding the 17 key down. The tape is transported to the right.

13 STOP key

14 FAST-FORWARD key

Press this key to advance the tape rapidly to the right. It is also used for the cue function.

15 PAUSE key

Press this key to stop the tape running for a moment during recording or playback. This key is also used for the cue and review functions.

16 RECORD MUTE key

Press this key to eliminate unwanted material and to insert a blank space during recording.

17 RECORD key

Press this key together with the 12 key to start recording.

18 DOLBY NR\* switch

For recording or playback with Dolby B-type system, set the DOLBY NR switch to B. For recording or playback with Dolby C-type NR system, set it to C. For recording without Dolby NR system, set it to OFF.

\*"Dolby" and the double-D symbol are trade marks of the Dolby Laboratories Licensing Corporation. Noise reduction system manufactured under license from Dolby Laboratories Licensing Corporation.

The Dolby NR system reduces tape hiss and improves the signal-to-noise ratio at low-level high-frequency signals.

19 TAPE select buttons

Depress one of the TAPE select buttons, depending on which type of tape you use. The optimum bias current adjustment for recording and the optimum equalization adjustment for both recording and playback are set.

20 MIC jacks (phone jack)

Any low-impedance microphone equipped with a phone plug may be used.

21 REC LEVEL (recording level) controls

These controls adjust the recording level.

Rear panel (Fig. B)

22 LINE IN (line input) jacks (phono jack)

Accept tape outputs from an amplifier for tape recording and line outputs from another tape deck when dubbing a tape from that unit.

23 LINE OUT (line output) jacks (phono jack)

Accept tape inputs from an amplifier for playing back a tape and line inputs from another tape deck for dubbing a tape onto that unit.

24 SYNC connector (3-pin)

For synchro recording, connect to the SYNC connector of the turntable system. For further details, refer to the instruction manual of the Sony turntable system.

25 CONTROL S IN connector

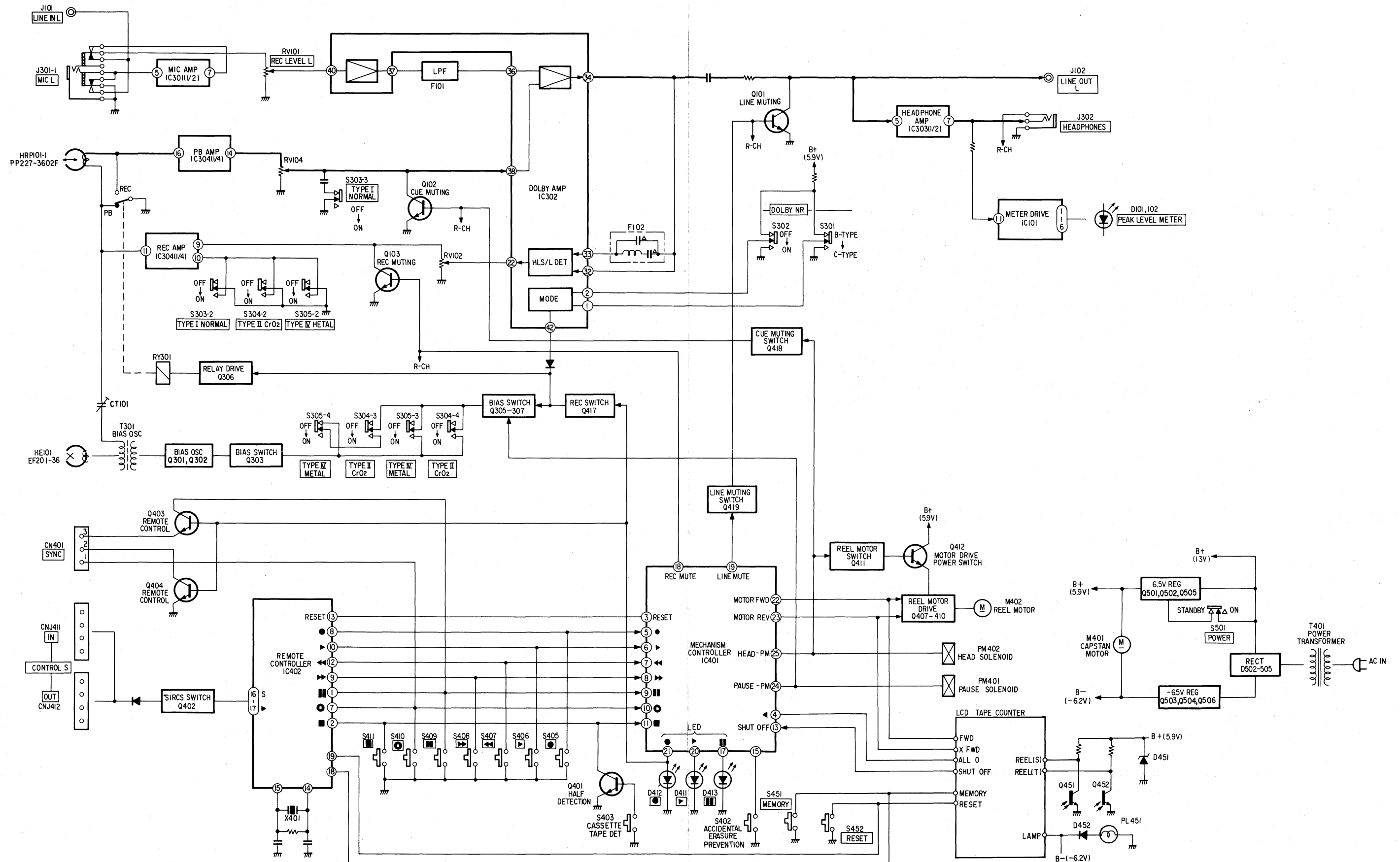
Connect to the CONTROL S OUT connector of Sony audio equipments equipped with a 4-pin remote control connector.

26 CONTROL S OUT connector

Connect to the CONTROL S IN connector of Sony audio equipments equipped with a 4-pin remote control connector.

26 AC power cord

1-2. BLOCK DIAGRAM



## SECTION 2 DISASSEMBLY

**Note:** Follow the disassembly procedure in the numerical order given.

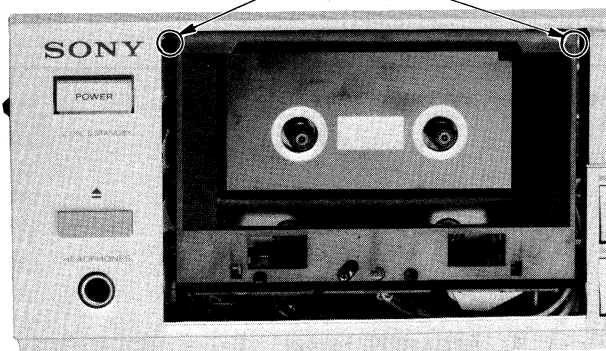
### CASE

Remove four (4) screws and case.



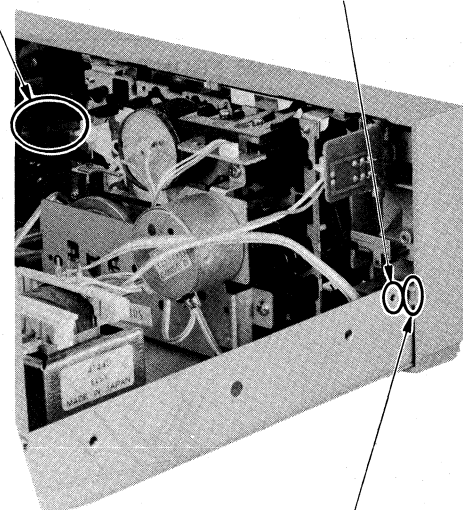
### FRONT PANEL

① Remove screws, +BVT3 x 6 (two).

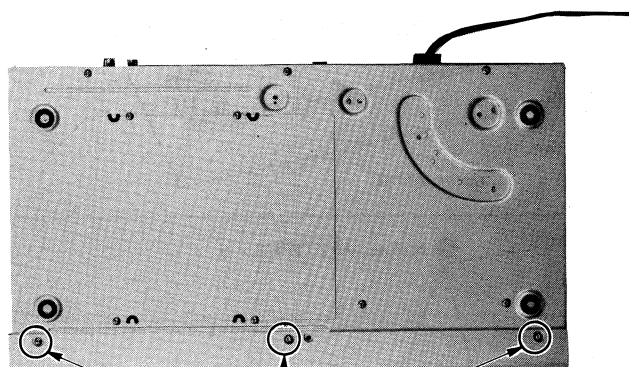


tape counter

③ Remove a screw, +BVT3 x 6, and a solder lug.

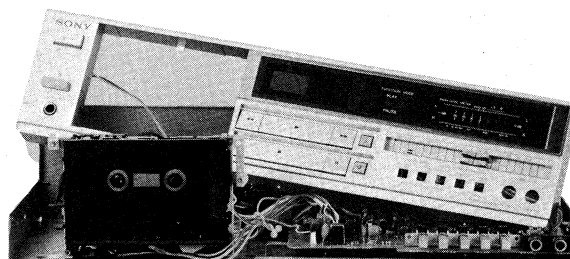


④ Unlock front-panel claws (both sides) from chassis.

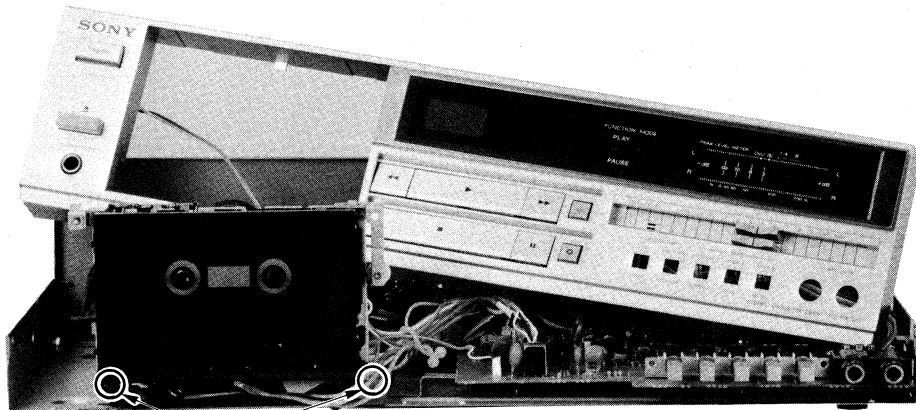


② Remove screws, +BVT3 x 6 (three).

⑤ Pull front panel forward. Take care not to break lead wires extracting from PC boards. Front panel contains six (6) PC boards.



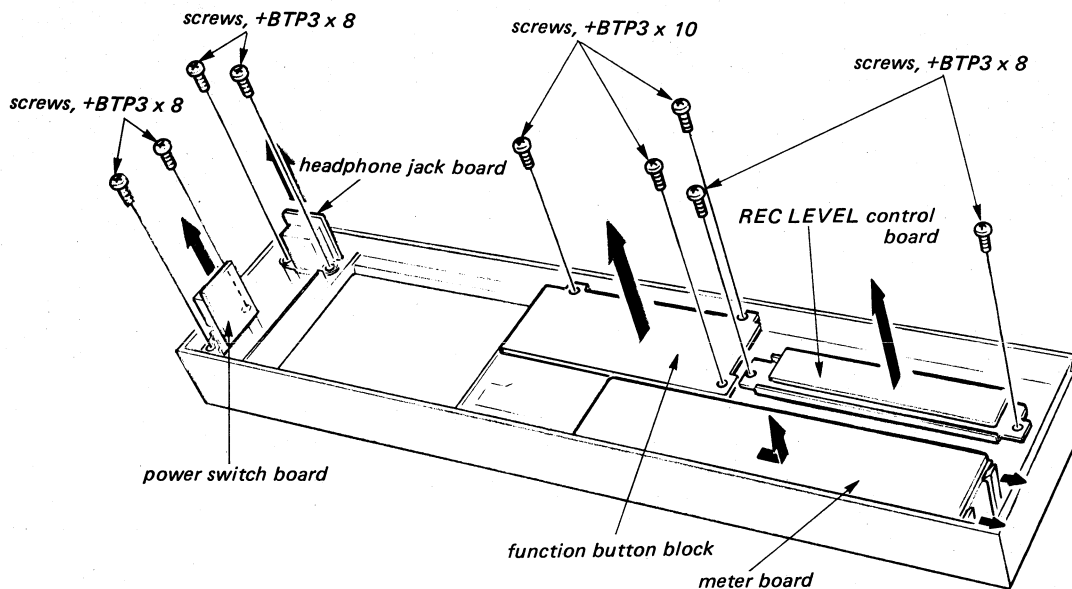
## DECK MECHANISM



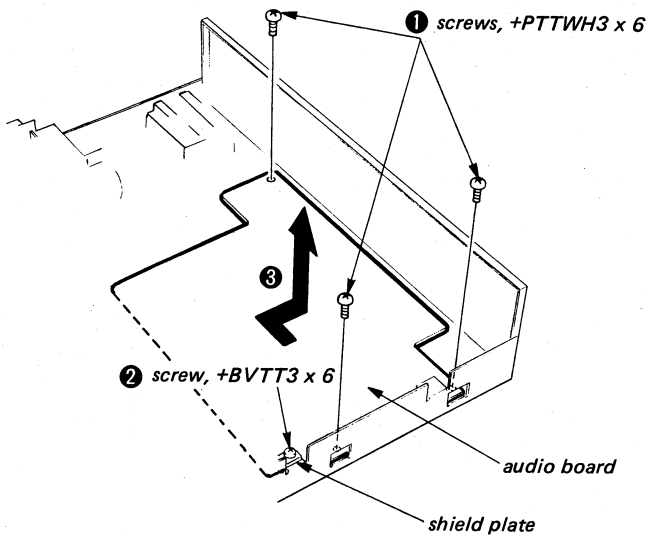
Remove screws, +BVTT3 x 6 (two).

## PC BOARDS FROM FRONT PANEL

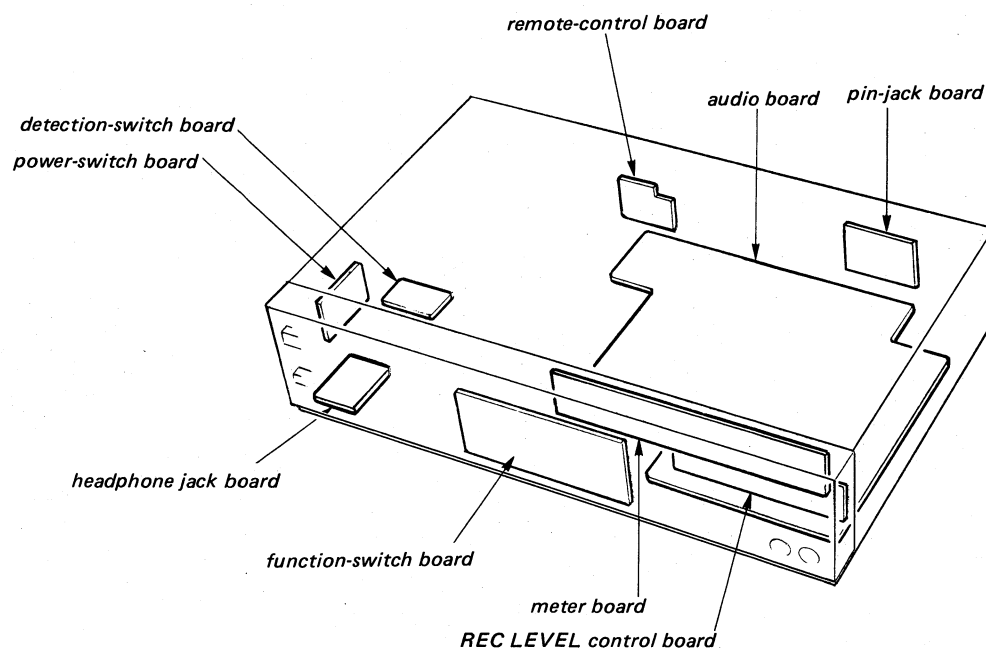
Remove appropriate screws or unlock appropriate claws from PC boards as shown.



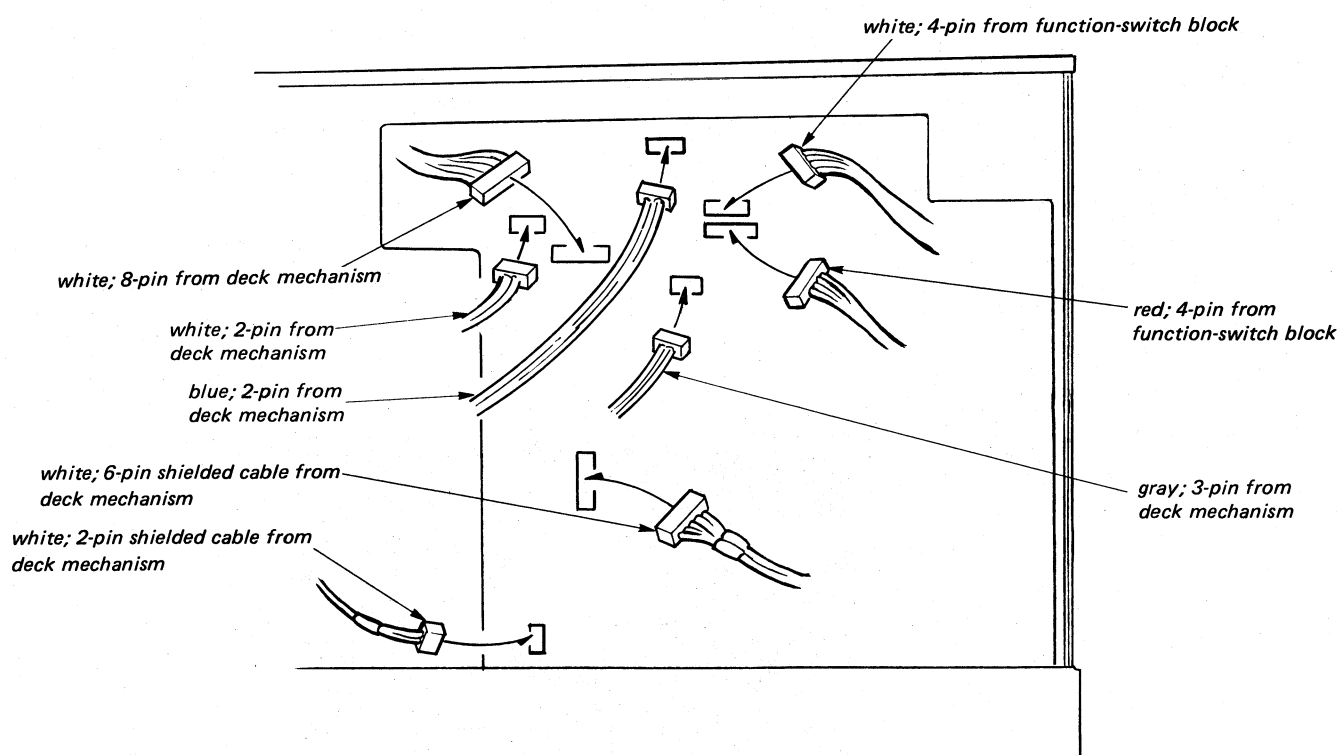
## AUDIO BOARD



## LOCATION OF PRINTED-CIRCUIT BOARDS



## RECONNECTING CONNECTORS



## SECTION 3 ADJUSTMENTS

### 3-1. MECHANICAL ADJUSTMENTS

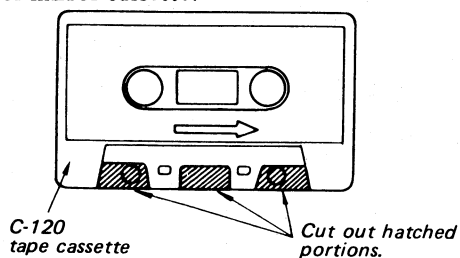
#### PRECAUTION

1. Clean the following parts with a denatured-alcohol-moistened swab:
 

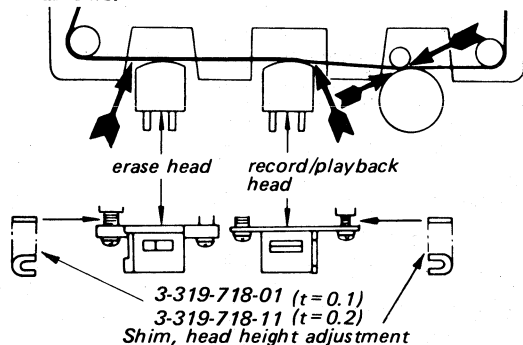
record/playback head	pinch roller
erase head	rubber belts
capstan	
2. Demagnetize the record/playback head with a head demagnetizer.
3. Do not use a magnetized screwdriver for the adjustments.
4. After the adjustments, apply suitable locking compound to the parts adjusted.
5. The adjustments should be performed with the rated power supply voltage unless otherwise noted.

#### Head Height Adjustment

1. Prepare an adjustment cassette as shown below, or mirror cassette.



2. In playback mode and viewing from the front, adjust the head heights to eliminate tape curl and tape twist at the portions shown by the arrows.



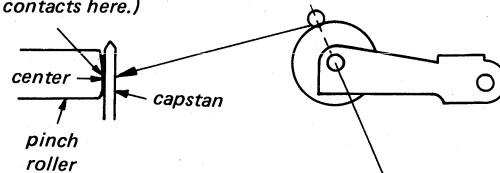
#### Torque Measurement

Torque	Torque meter	Meter reading
Forward	CQ-102C	28 – 60 g-cm (0.41 – 0.8 oz-inch)
Back Tension	CQ-102C	2.5 – 6 g-cm (0.03 – 0.08 oz-inch)
Fast Forward and Rewind	CQ-201B	80 – 150 g-cm (1.1 – 2.0 oz-inch)

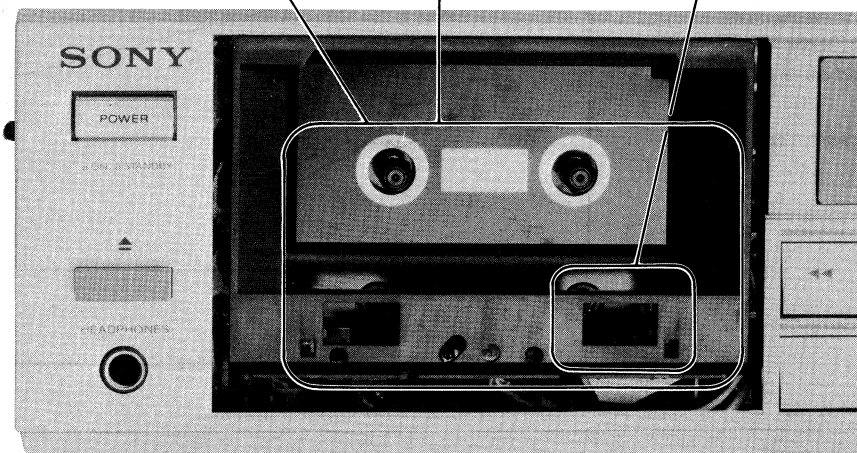
#### Pinch Roller Pressure Measurement

— Playback Mode —

- ② Slowly return the pinch roller and read the spring scale just when the pinch roller starts rotating. (The capstan should first contacts here.)



- ① tension gauge
- 200–300 g-cm  
(2.77–4.16 oz-inch)





## 3-2. ELECTRICAL ADJUSTMENTS

**Note:** The adjustment should be performed in the order given in this service manual. The adjustments should be performed for both L-CH and R-CH.

- TAPE switches are automatically set according to the tape.

Tape	TAPE Indicator
CS-17	TYPE I : NORMAL
CS-26	TYPE II : CrO <sub>2</sub>
CS-40(CS-412)	TYPE IV : METAL

- Switches and controls should be set as follows unless otherwise specified.

DOLBY NR switch: OFF

- Standard Record:

Deliver the standard input signal level to the input jack and set the REC LEVEL control to obtain the standard output signal level.

### Standard Input Level

	LINE IN
source impedance	10k $\Omega$
input level	0.25V (-10dB)

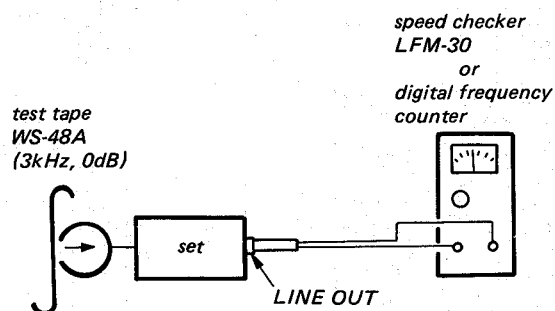
### Standard Output Level

	LINE OUT
load impedance	47k $\Omega$
output level	0.435V (-5dB)

## Speed Adjustment

### Procedure:

Mode: playback



### Specification:

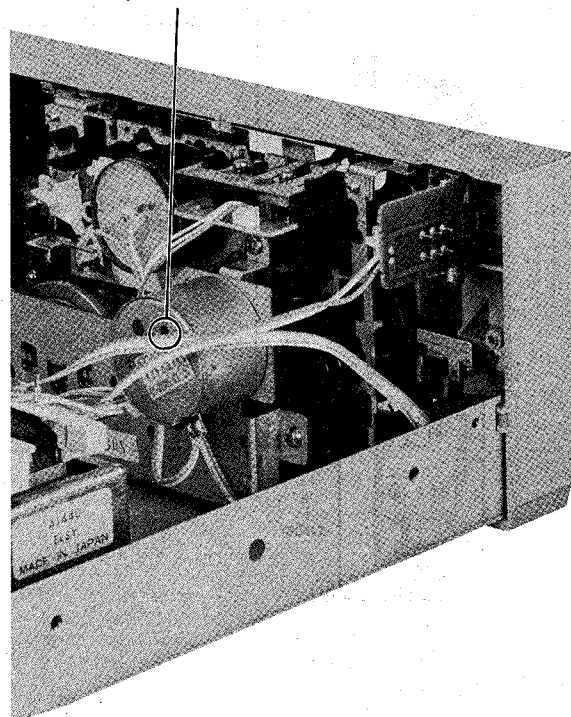
Speed checker	Digital frequency counter
-1 - +1%	2,970 - 3,030Hz

Frequency difference between the beginning and the end of the tape should be within 0.8% (25Hz).

### Adjustment Location:

— capstan motor —

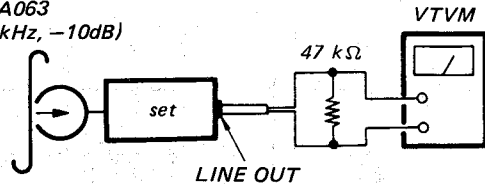
adjustment control inside motor



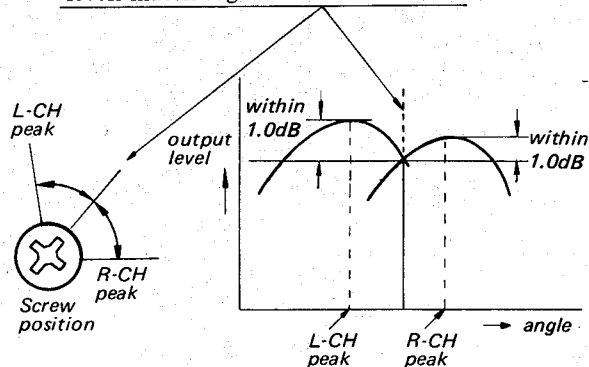
## Record/playback Head Azimuth Adjustment Procedure:

1. Mode: playback

test tape  
P-4-A063  
(6.3kHz, -10dB)



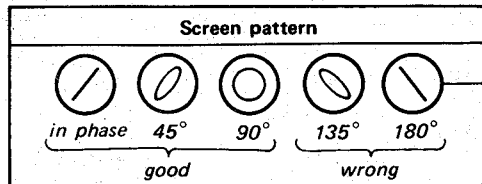
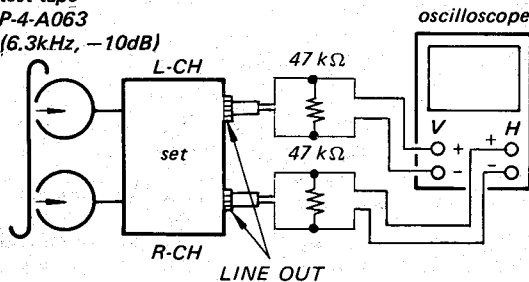
2. Turn the adjustment screw for the maximum output levels. If these levels do not match, turn the adjustment screw until both of output levels match together within 1.0dB.



3. Phase Check

Mode: playback

test tape  
P-4-A063  
(6.3kHz, -10dB)



Adjustment Location:

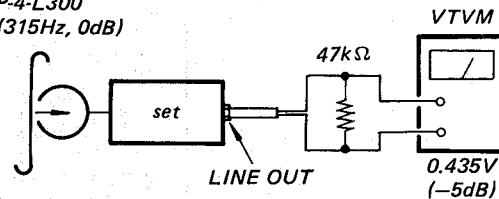


## Playback Level Adjustment

### Procedure:

Mode: playback

test tape  
P-4-L300  
(315Hz, 0dB)



Adjust RV104 (L-CH) and RV204 (R-CH).

### Specification:

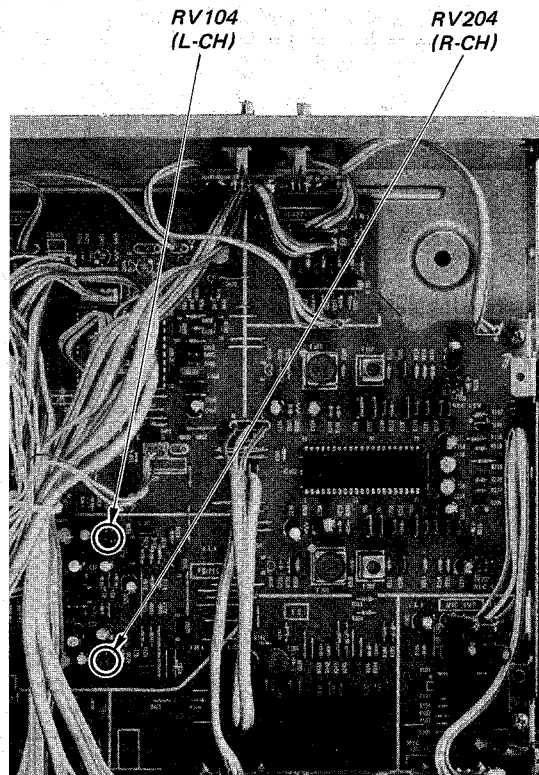
LINE OUT level: 0.46 - 0.42V  
(-4.5 - -5.5dB)

Level difference between channels:  
less than 0.5dB (0.05V)

Check that the LINE OUT level does not change in playback mode while changing the mode from playback to stop several times.

### Adjustment Location:

- audio board -

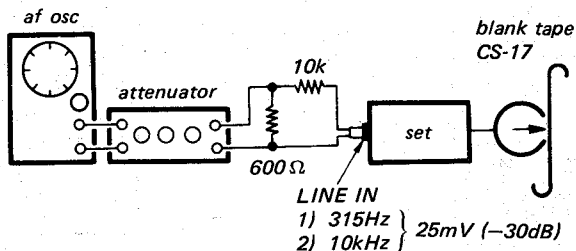


**Record Bias Adjustment**
**Setting:**

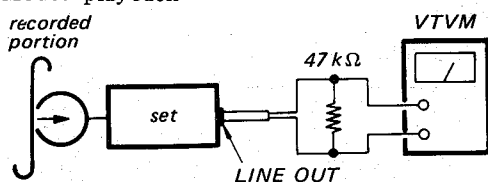
REC LEVEL control: standard record  
(See page 11)

**Procedure:**

1. Mode: record



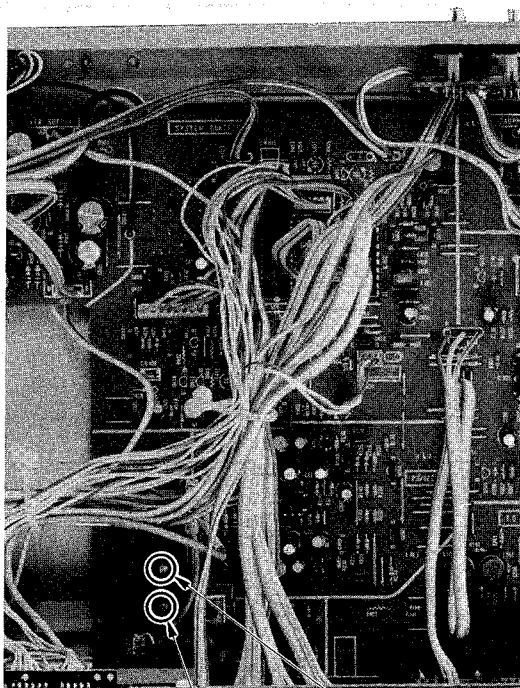
2. Mode: playback



Adjust CT101 (L-CH) and CT201 (R-CH) so that the LINE OUT level of 10kHz signal is 0dB  $\pm$  0.5dB relative to that of 315Hz.

**Adjustment Location:**

— audio board —



CT101  
(L-CH)

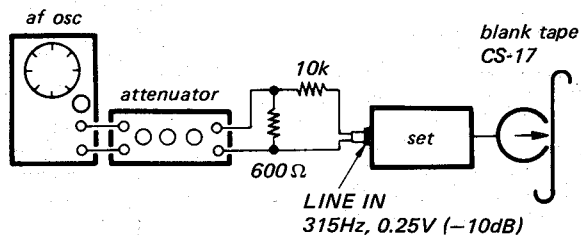
CT201  
(R-CH)

**Record Level Adjustment**
**Setting:**

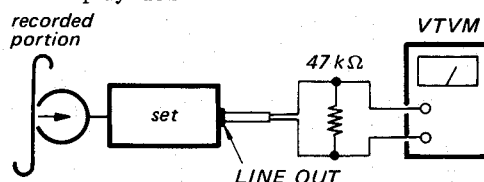
REC LEVEL control: standard record  
(See page 11)

**Procedure:**

1. Mode: record



2. Mode: playback



Adjust RV102 (L-CH) and RV202 (R-CH).

**Specification:**

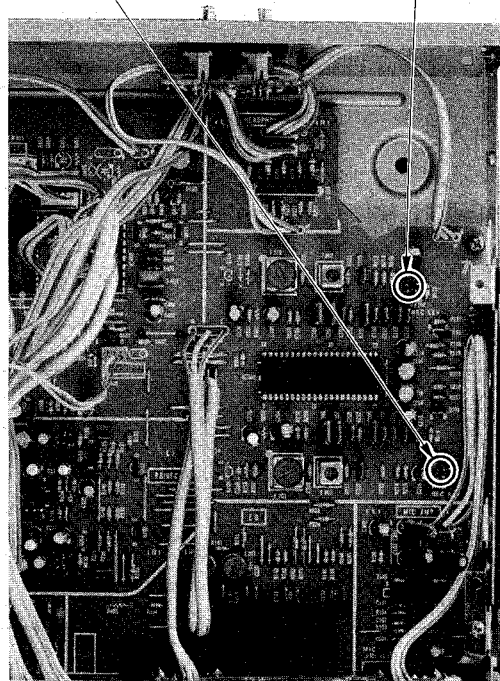
LINE OUT level: 0.46 – 0.42V  
(–4.5 – –5.5dB)

**Adjustment Location:**

— audio board —

RV202  
(R-CH)

RV102  
(L-CH)



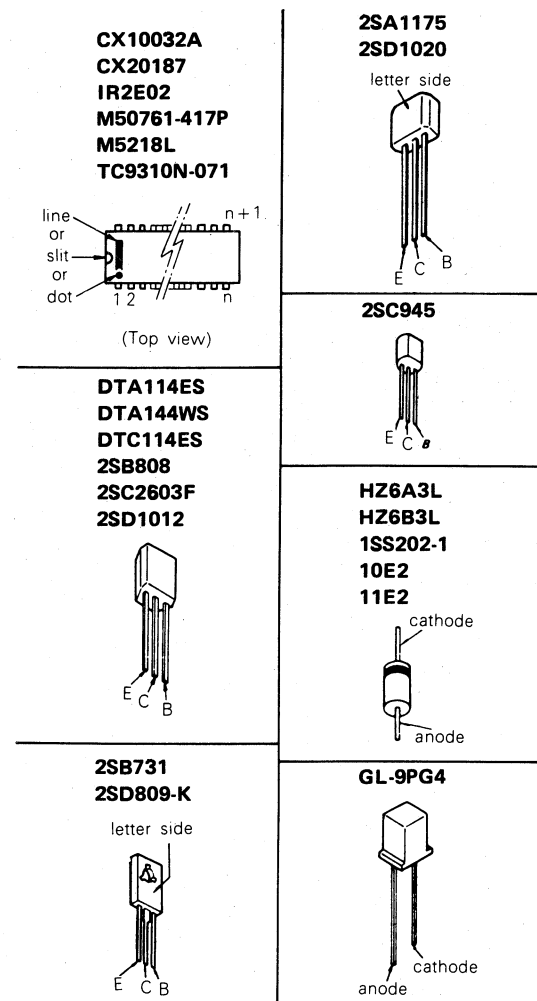


SECTION 4  
DIAGRAMS

4-1. MOUNTING DIAGRAM

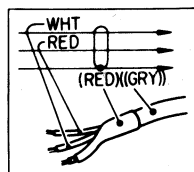
— Conductor Side —

Semiconductor Lead Layouts



Note:

- Color code of sleeving over the end of the jacket.

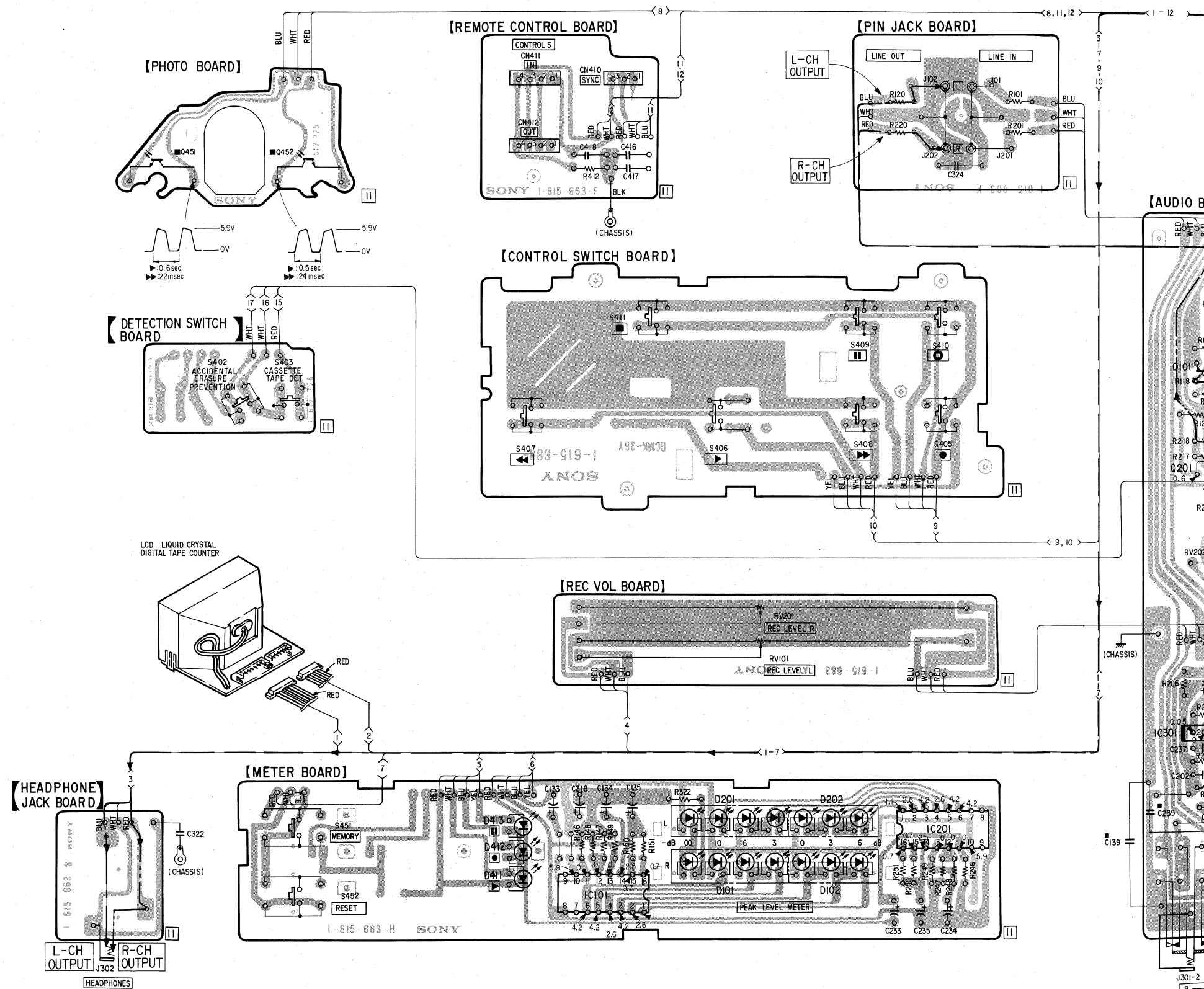


- : parts extracted from the component side.
- : parts extracted from the conductor side.
- : part mounted on the conductor side.
- : indicates side identified with part number.
- : signal path
- : L-CH signal path
- : R-CH signal path
- : B + pattern

A  
B  
C  
D  
E  
F  
G  
H  
I  
J

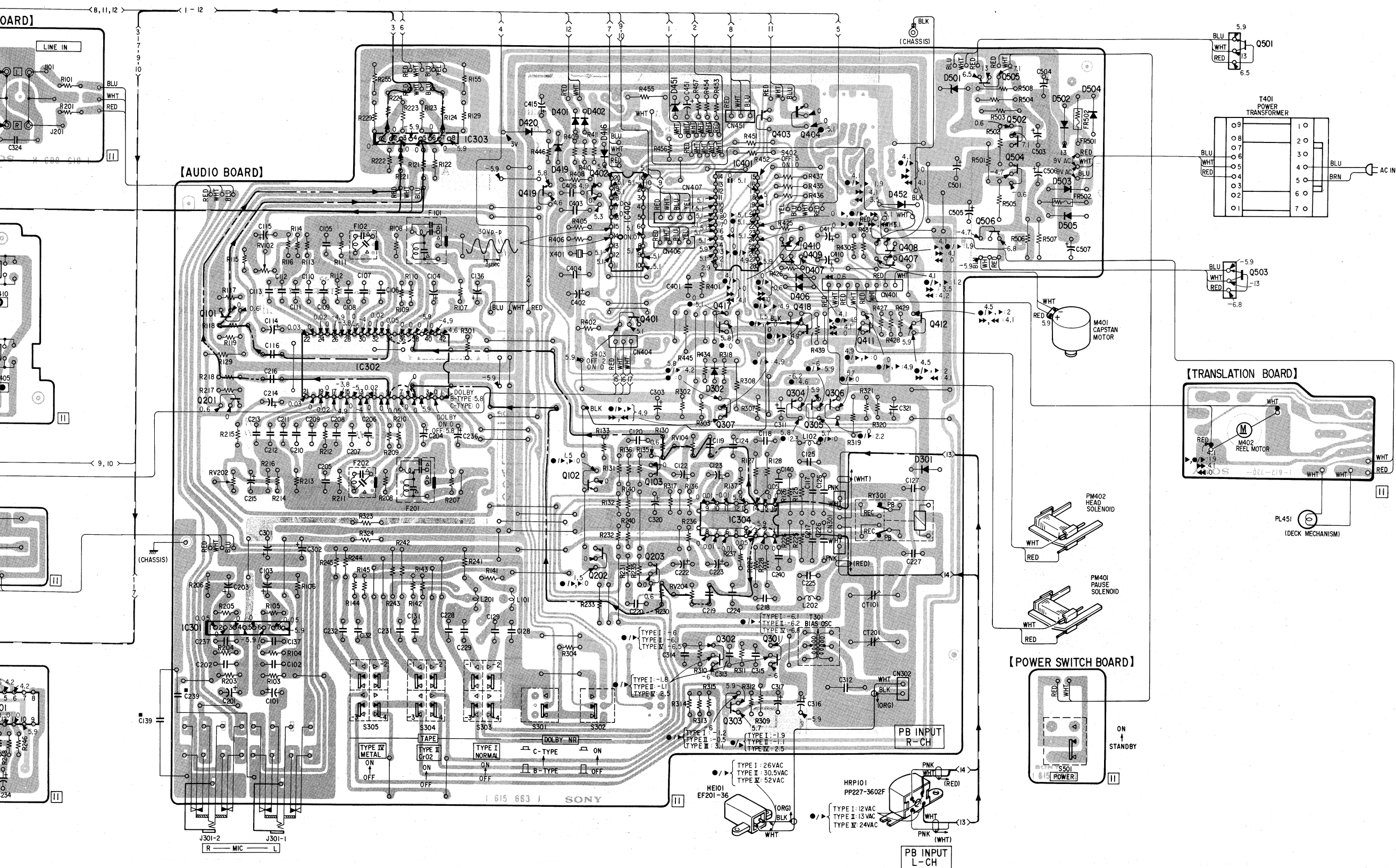
1 2 3 4 5 6 7 8 9 10 11 12

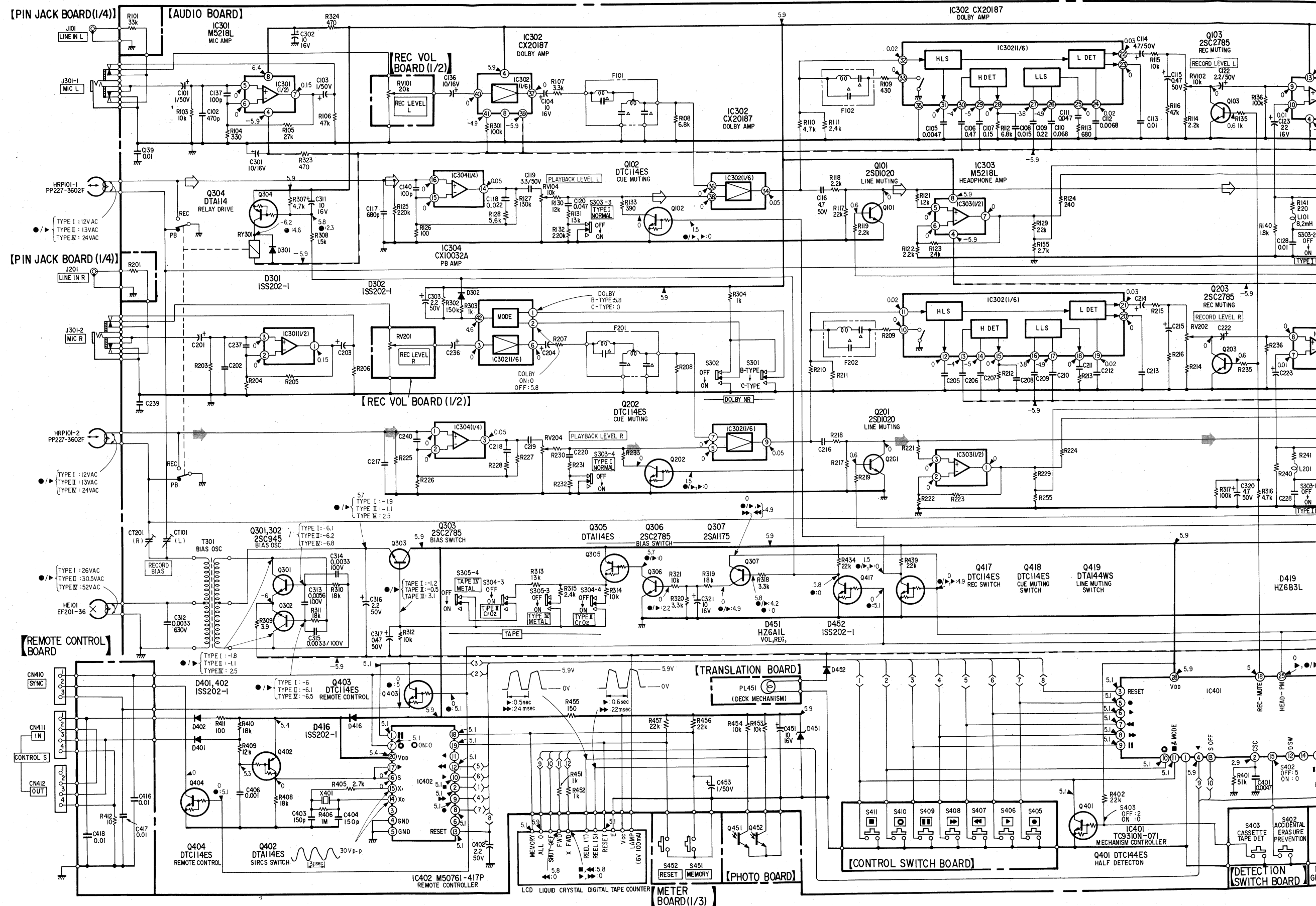
Q											
IC											
D											

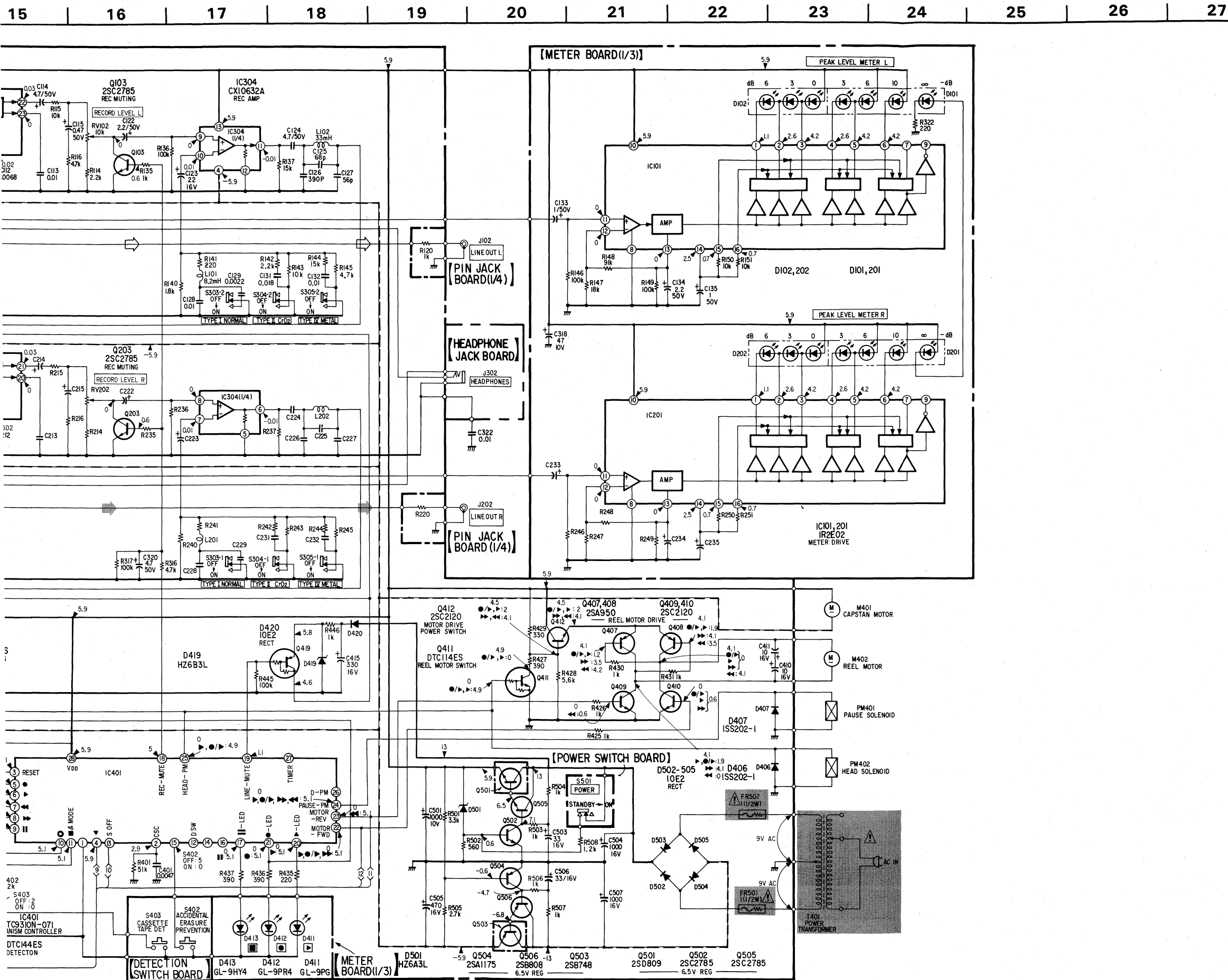




11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
		101 201 IC301		IC303 IC302	419	402 IC402 401 102 202		IC401 403 404 410, 409 418 304, 305, 306 IC304 302, 303, 301	411	408, 407 412	505 502 506 504	501  503				
IC201					420 419 401, 402 416	451	302	407 406		452 301 501	502 503 504 505					







**Note:**

- All capacitors are in  $\mu\text{F}$  unless otherwise noted.  $\text{pF}$ :  $\mu\text{F}$  50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in  $\Omega$  and  $\frac{1}{4}\text{W}$  or less unless otherwise specified.
- $\square$  : L-CH signal path
- $\blacksquare$  : R-CH signal path
- Components for right channel have same values as for left channel. Reference numbers are coded from 201.
- $\triangle$  : internal component.
- $\text{---}\text{---}$  : fusible resistor.
- $\text{---}$  : B+ bus.
- $\text{---}$  : B- bus.
- $\square$  : adjustment for repair.
- AC voltage readings in the bias oscillator with a VTVM.
- Voltages are dc with respect to ground unless otherwise noted.
- Readings are taken under no-signal (detuned) conditions with a VOM (50k $\Omega$ /V).
- $\blacktriangleright$  : PLAY
- $\blacktriangleleft$  : FF
- $\blacktriangleright$  : REW
- $\blacksquare$  : STOP
- $\bullet$  : RECORD
- NO MARK : COMMON
- Waveforms are taken to ground by using oscilloscope. Voltage variations may be noted due to normal production tolerances.

**Note: The components identified by shading and mark  $\triangle$  are critical for safety. Replace only with part number specified.**




# SECTION 5 EXPLODED VIEWS AND PARTS LIST

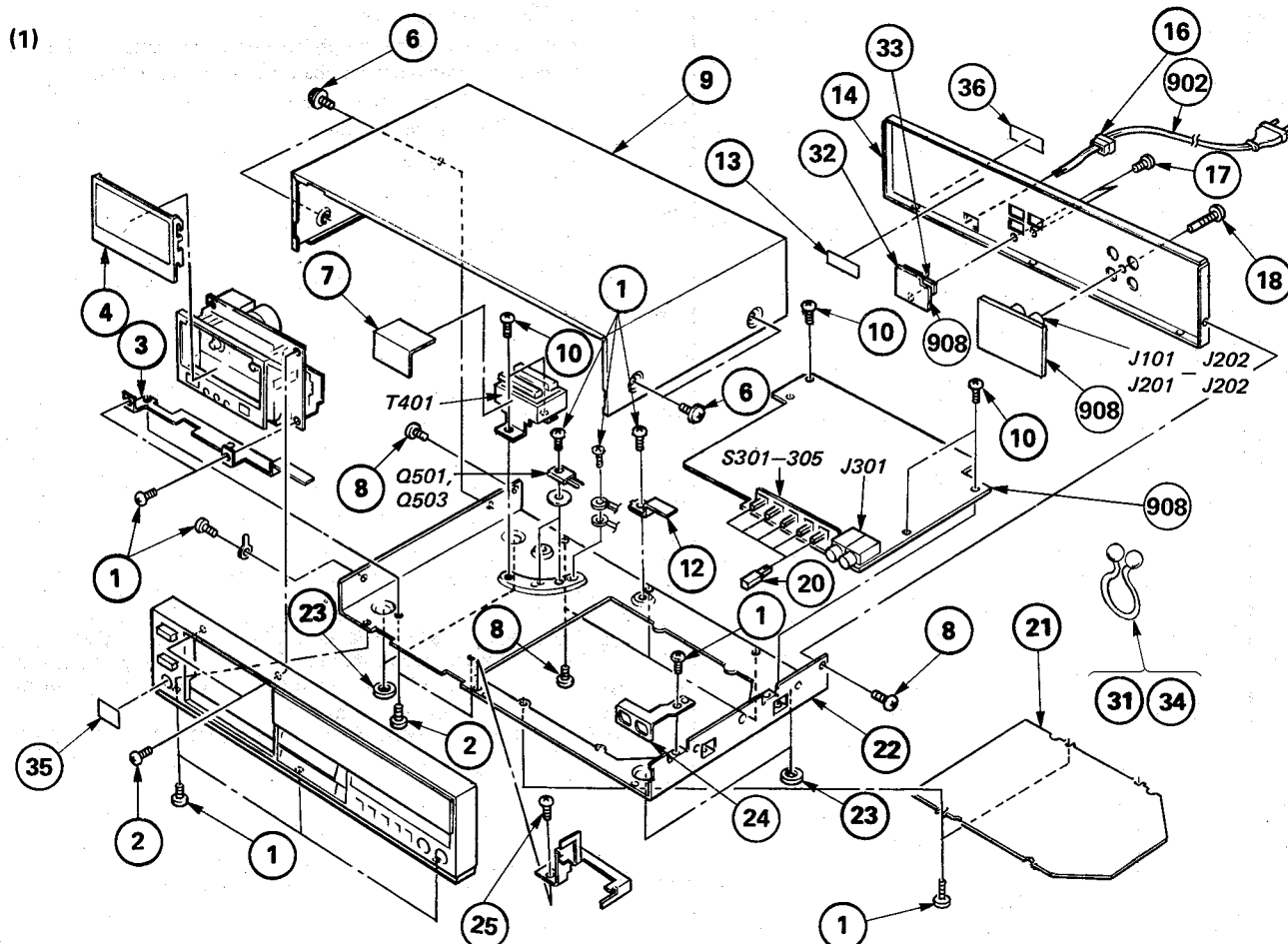
**NOTE:**

The mechanical parts with no reference number in the exploded views are not supplied.

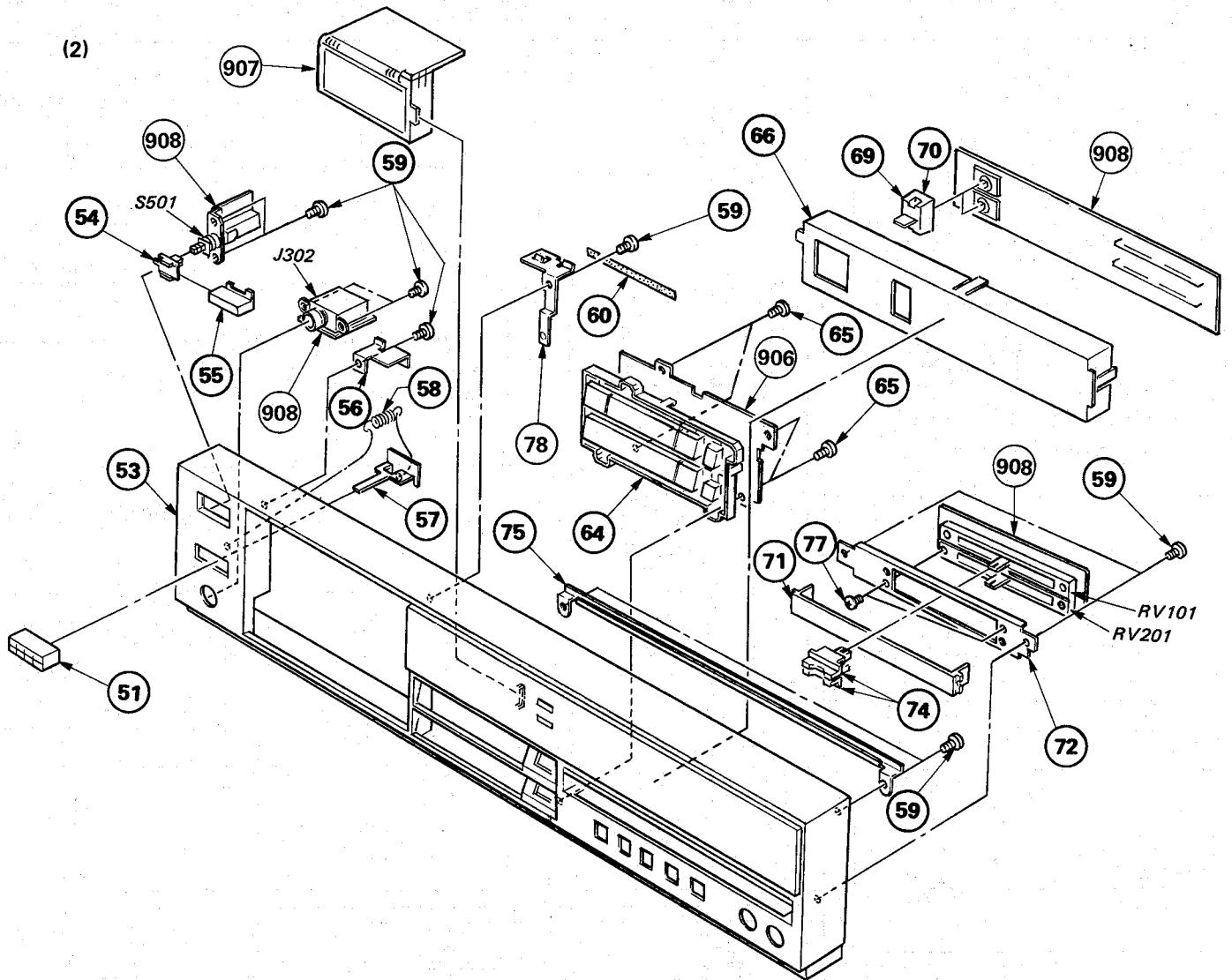
Items marked " \* " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The construction parts of an assembled part are indicated with a collation number in the remark column.

The components identified by shading and mark  are critical for safety. Replace only with part number specified.

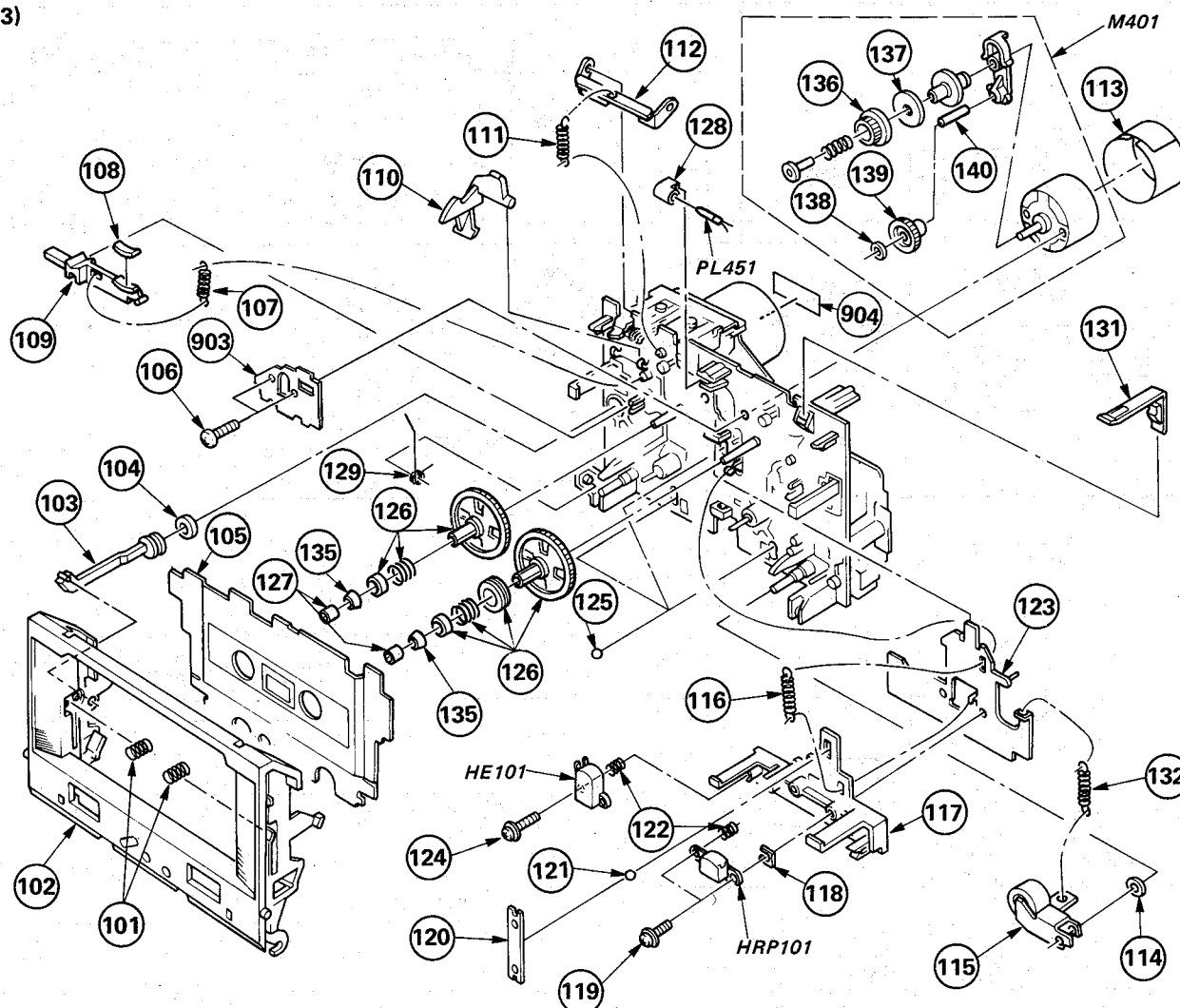


No.	Part No.	Description	Remarks	No.	Part No.	Description	Remarks
1	7-685-871-01	SCREW +BVTT 3X6 (S)		18	3-703-473-00	SCREW, TERMINAL	
2	7-685-751-09	SCREW +BVTT 3X6 (S)		19	*3-312-615-11	HEAT SINK	
3	*3-318-975-01	BRACKET (A), MD		20	4-855-804-11	(BLACK)...KNOB, SQUARE	
4	X-3318-	(SILVER)...LID ASSY, CASSETTE			4-855-804-51	(GRY)....KNOB, SQUARE	
	X-3318-	(BLACK)....LID ASSY, CASSETTE					
6	4-889-321-01	(SILVER)...SCREW		21	*3-318-946-01	PLATE, BOTTOM	
	4-889-321-11	(BLACK)....SCREW		22	*3-318-948-13	CHASSIS	
7	9-911-863-XX	SHEET, INSULATING		23	3-576-731-00	FELT (H)	
8	7-685-752-04	SCREW +BVTT 3X8 (S)		24	*3-318-973-01	PLATE, SHIELD	
9	4-904-474-21	(SILVER)...CASE		25	7-682-546-04	SCREW +BVTT 3X5 (S)	
	4-904-474-31	(BLACK)....CASE		26	*3-318-969-01	RETAINER, PC BOARD	
11	3-572-365-11	SHEET, INSULATING (A)		31	3-315-159-01	PURSE LOCK (DIA. 14)	
12	*3-318-963-01	BRACKET, AUDIO PC BOARD		32	*3-322-818-01	HOLDER, CONNECTOR	
13	*3-701-030-00	LABEL, SERIAL NUMBER		33	*3-322-819-01	HOLDER, CONNECTOR	
14	*3-307-530-73	PLATE, JACK		34	*3-701-417-00	PURSE LOCK (11 DIA.)	
16	3-703-244-00	BUSHING (2104), CORD		35	*3-703-713-01	STICKER, SONY SYMBOL (10)	
17	7-685-133-19	SCREW +P 2.6X6 TYPE2 NON-SLIT		36	*3-327-807-01	LABEL, MODEL NUMBER (AE1)	
				902	A-1-534-817-XX	CORD, POWER, EULO PLUG	
				908	*A-2056-289-A	PC BOARD ASSY, AUDIO (INCLUDING REC VOL, HEADPHONES JACK, POWER SWITCH, REMOTE CONTROL, METER AND PIN JACK BOARDS)	

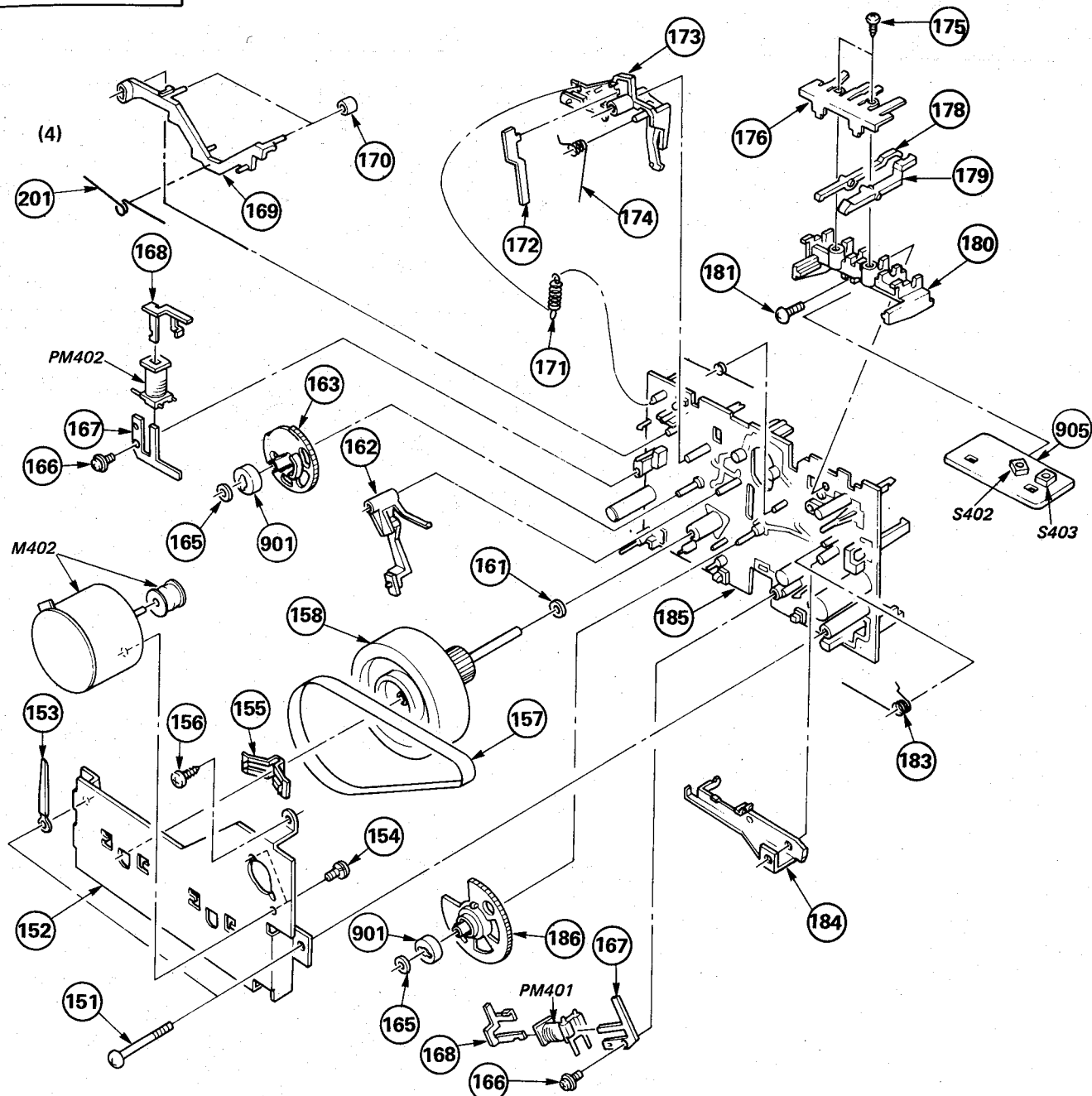


No.	Part No.	Description	Remarks	No.	Part No.	Description	Remarks
51	3-304-419-31	(SILVER)...BUTTON, EJECT		65	7-685-547-01	SCREW +BTP 3X10 TYPE1	
	3-304-419-71	(BLACK)...BUTTON, EJECT		66	3-318-978-01	HOLDER, METER	
53	X-3318-938-1	(SILVER)...PANEL ASSY		67	3-318-989-01	SPACER (B), LED	
	X-3318-939-1	(BLACK)...PANEL ASSY		68	*3-318-941-01	SPACER, LED	
54	*4-902-831-01	JOINT (G), KNOB		69	3-302-902-11	KNOB, PUSH	
55	3-318-911-61	(SILVER)...KNOB (POWER.L), T MOLD		70	*4-881-725-00	RING (TACT), FLEXIBLE	
	3-318-911-71	(BLACK)...KNOB (POWER.L), T MOLD		71	3-318-964-02	(SILVER)...HOLDER, REC VOL	
					3-318-964-12	(BLACK)...HOLDER, REC VOL	
56	*3-318-967-01	BRACKET (B), MD		72	*3-318-974-01	BRACKET, REC VOL	
57	*3-318-962-01	SLIDER, EJECT		74	3-318-986-01	BUTTON, REC VOL	
58	3-540-244-00	SPRING, TENSION		75	*3-318-976-01	BRACKET, CASE	
59	7-685-546-01	SCREW +BTP 3X8 TYPE1		77	7-621-775-10	SCREW +B 2.6X4	
60	*3-327-818-01	SHEET, CONDUCTIVE		78	*3-318-968-	BRACKET (C), MD	
64	X-3318-921-1	(SILVER)...BLOCK ASSY, FUNCTION BUTTON		906	*1-615-664-11	PC BOARD, CONTROL SWITCH	
	X-3318-922-1	(BLACK)...BLOCK ASSY, FUNCTION BUTTON		907	8-830-515-01	H-IC (BH-2801)(LCD COUNTER UNIT)	

(3)

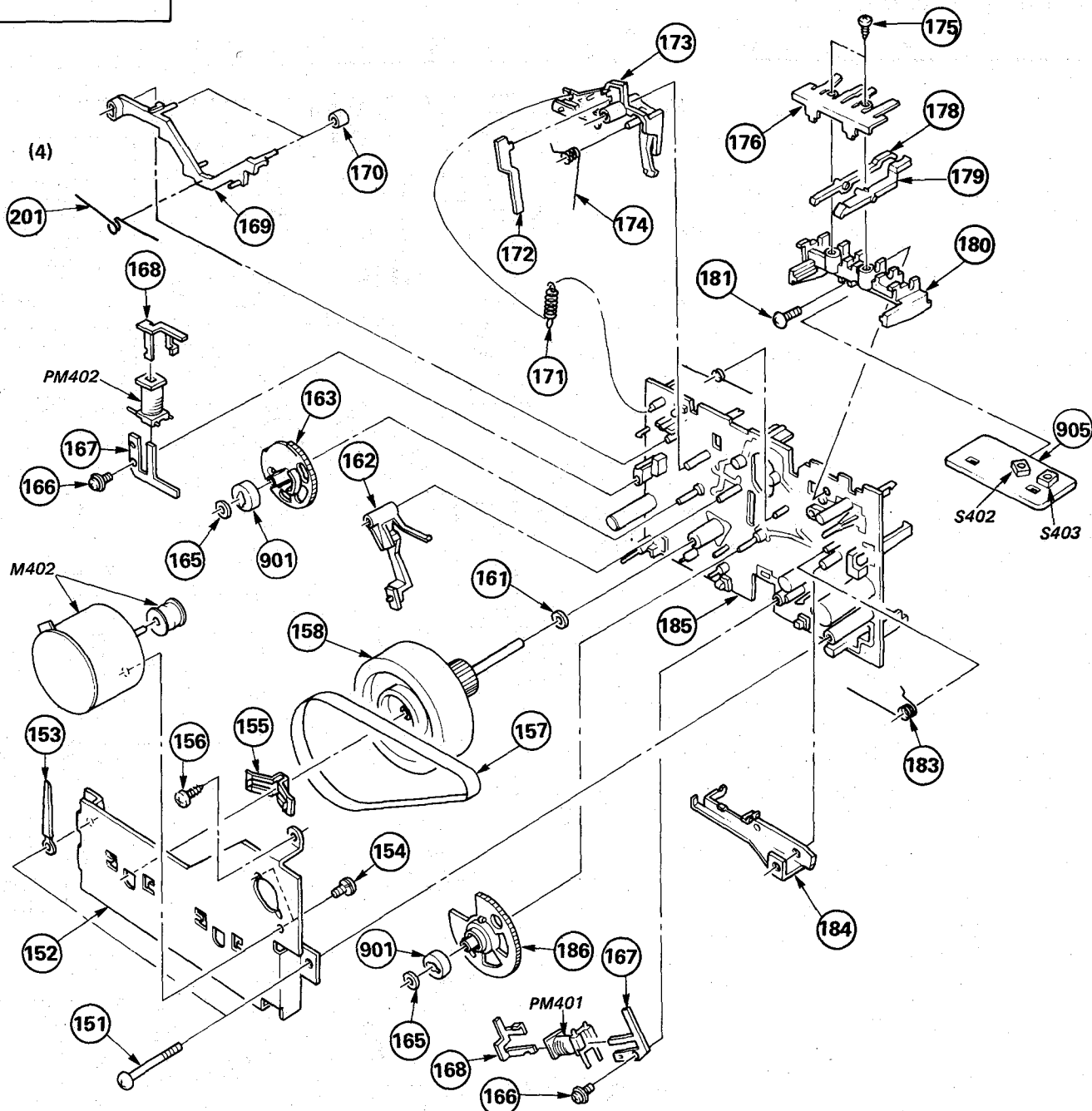


No.	Part No.	Description	Remarks	No.	Part No.	Description	Remarks
101	3-610-808-00	SPRING (1)		121	7-671-112-11	BALL, STEEL	
102	3-319-682-01	HOLDER, CASSETTE		122	3-319-712-01	SPRING, COMPRESSION	
103	3-319-613-01	PISTON (B)		123	*X-3319-624-1	CHASSIS (S) ASSY, HEAD	
104	3-312-441-00	RING, PISTON		124	3-703-496-00	SCREW + PWH2X14	
105	X-3318-819-1	RETAINER ASSY, CASSETTE		125	7-671-112-01	STEEL, BALL	
106	7-621-775-60	SCREW +B 2.6X12		126	X-3319-626-1	TABLE (L) ASSY, REEL	
107	3-319-694-01	SPRING, TENSION		127	3-319-607-01	BUSHING, REEL TABLE	
108	3-575-346-01	FELT, BRAKE		128	3-319-636-01	RUBBER, LAMP HOLDER	
109	*3-319-611-01	LEVER (LEFT), BACK TENSION		129	3-319-614-01	SPRING	
110	3-319-669-01	LEVER, EJECT		131	3-319-717-01	SPRING	
111	3-312-432-00	SPRING, TENSION		132	3-319-711-01	SPRING, TENSION	
112	*3-319-709-01	LEVER (B), LIFT, SWITCH		135	3-531-760-00	CLAW, REEL SPINDLE	
113	3-575-457-00	PLATE (B), SHIELD, MOTOR		136	3-575-324-00	GEAR, LIMITER	
114	7-623-924-11	WASHER 3.0, NYLONE		137	3-564-027-11	FELT, LIMITER	
115	X-3319-625-1	PINCH LEVER ASSY		138	3-307-394-00	RETAINER (B), THRUST	
116	3-319-713-01	SPRING, TENSION		139	3-575-332-00	GEAR, FR	
117	3-319-715-03	BRACKET, HEAD		140	3-575-304-00	SHAFT, GEAR, FR	
118	3-319-718-01	SHIM, ADJUSTMENT, HEAD (t=0.1)		903	*1-612-725-11	PC BOARD, PH.T	
119	3-319-719-01	SCREW, TOOTHED LOCK (+- 2X13)		904	*1-613-522-11	PC BOARD, TRANSLATION	
120	*3-319-601-11	SPRING					



No.	Part No.	Description	Remarks
151	7-685-879-01	SCREW +BVTT 3X30 (S)	
152	*3-319-665-01	RETAINER, THRUST	
153	3-703-150-11	CLAMP	
155	3-319-608-01	RETAINER, THRUST	
156	7-685-645-11	SCREW +BVTP 3X6 TYPE2 N-S	
157	3-319-710-01	BELT (R), CAPSTAN	
158	X-3319-630-1	FLYWHEEL (T) ASSY	
161	3-307-482-00	WASHER, LUMILER	
162	*X-3319-615-1	LEVER ASSY, FWD LOCK	
163	3-319-688-01	GEAR, PAUSE CAM	
165	3-307-394-00	RETAINER (B), THRUST	
166	7-687-204-11	TOTSU PTPWH 2X6 NON-SLIT, TYPE2	
167	3-307-332-00	ARBOR, FIXED	
168	3-307-333-00	ARBOR, TRIGGER	
169	*3-319-668-01	PLATE, BRAKE	
170	3-319-662-01	RUBBER, BRAKE	

No.	Part No.	Description	Remarks
171	3-555-124-00	SPRING, TENSION	
172	3-319-612-01	SPRING	
173	*X-3319-614-1	LEVER ASSY, PAUSE	
174	3-319-606-01	SPRING	
175	7-685-131-21	SCREW +P 2.6X4 TYPE2 SLIT	
176	3-319-602-01	SPRING	
178	3-319-603-01	LEVER, REC DETECTION	
179	3-319-604-01	LEVER, HALF DETECTION	
180	3-319-670-01	HOLDER, SWITCH, DETECTION	
181	7-685-795-04	SCREW +BVTT 2.6X12 (S)	
183	3-319-633-01	SPRING	
184	*3-319-676-11	LEVER, FWD	
185	X-3319-628-1	CHASSIS ASSY, MECHANICAL	
186	3-319-689-01	GEAR, FWD CAM	
201	3-319-649-01	SPRING	
901	1-452-202-00	MAGNET	
905	*1-613-523-11	PC BOARD, DETECTION SW	



No.	Part No.	Description	Remarks	No.	Part No.	Description	Remarks
151	7-685-879-01	SCREW +BVTT 3X30 (S)		171	3-555-124-00	SPRING, TENSION	
152	*3-319-665-01	RETAINER, THRUST		172	3-319-612-01	SPRING	
153	3-703-150-11	CLAMP		173	*X-3319-614-1	LEVER ASSY, PAUSE	
155	3-319-608-01	RETAINER, THRUST		174	3-319-606-01	SPRING	
156	7-685-645-11	SCREW +BVTP 3X6 TYPE2 N-S		175	7-685-131-21	SCREW +P 2.6X4 TYPE2 SLIT	
157	3-319-710-01	BELT (R), CAPSTAN		176	3-319-602-01	SPRING	
158	X-3319-630-1	FLYWHEEL (T) ASSY		178	3-319-603-01	LEVER, REC DETECTION	
161	3-307-482-00	WASHER, LUMILER		179	3-319-604-01	LEVER, HALF DETECTION	
162	*X-3319-615-1	LEVER ASSY, FWD LOCK		180	3-319-670-01	HOLDER, SWITCH, DETECTION	
163	3-319-688-01	GEAR, PAUSE CAM		181	7-685-795-04	SCREW +BVTT 2.6X12 (S)	
165	3-307-394-00	RETAINER (B), THRUST		183	3-319-633-01	SPRING	
166	7-687-204-11	TOTSU PTPWH 2X6 NON-SLIT, TYPE2		184	*3-319-676-11	LEVER, FWD	
167	3-307-332-00	ARBOR, FIXED		185	X-3319-628-1	CHASSIS ASSY, MECHANICAL	
168	3-307-333-00	ARBOR, TRIGGER		186	3-319-689-01	GEAR, FWD CAM	
169	*3-319-668-01	PLATE, BRAKE		201	3-319-649-01	SPRING	
170	3-319-662-01	RUBBER, BRAKE		901	1-452-202-00	MAGNET	
				905	*1-613-523-11	PC BOARD, DETECTION SW	

# SECTION 6 ELECTRICAL PARTS LIST

## NOTE:

Items marked " \* " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

If there are two or more same circuits in a set such as a stereophonic machine, only typical circuit parts may be indicated and capacitors and resistors in other same circuits may be omitted.

## CAPACITORS:

MF:  $\mu$ F, PF:  $\mu$ F.

## RESISTORS

All resistors are in ohms.  
F : nonflammable

## COILS

MMH : mH, UH :  $\mu$ H

## SEMICONDUCTORS

In each case, U :  $\mu$ , for example:

UA...:  $\mu$ A..., UPA...:  $\mu$ PA..., UPC...:  $\mu$ PC,

UPD...:  $\mu$ PD...

The components identified by shading and mark  $\Delta$  are critical for safety. Replace only with part number specified.

## ELECTRICAL PARTS

Ref.No.	Part No.	Description
901	1-452-202-00	MAGNET
902	$\Delta$ 1-534-817-XX	CORD, POWER, EULO PLUG
903	*1-612-725-11	PC BOARD, PH.T
904	*1-613-522-11	PC BOARD, TRANSLATION
905	*1-613-523-11	PC BOARD, DETECTION SW
906	*1-615-664-11	PC BOARD, CONTROL SWITCH
907	8-830-515-01	H-IC (BH-2801)(LCD COUNTER UNIT)
908	*A-2056-289-A	PC BOARD ASSY, AUDIO (INCLUDING REC VOL, HEADPHONES JACK, POWER SWITCH, REMOTE CONTROL, METER AND PIN JACK BOARDS)
C101	1-123-380-00	ELECT 1MF 20% 50V
C102	1-162-290-31	CERAMIC 470PF 10% 50V
C103	1-123-380-00	ELECT 1MF 20% 50V
C104	1-123-356-00	ELECT 10MF 20% 16V
C105	1-110-203-00	MYLAR 0.0047MF 5% 50V
C106	1-136-173-00	FILM 0.47MF 5% 50V
C107	1-136-167-00	FILM 0.15MF 5% 50V
C108	1-136-155-00	FILM 0.015MF 5% 50V
C109	1-136-169-00	FILM 0.22MF 5% 50V
C110	1-136-163-00	FILM 0.068MF 5% 50V
C111	1-136-161-00	FILM 0.047MF 5% 50V
C112	1-110-205-00	MYLAR 0.0068MF 5% 50V
C113	1-136-153-00	FILM 0.01MF 5% 50V
C114	1-123-369-00	ELECT 4.7MF 20% 50V
C115	1-123-379-00	ELECT 0.47MF 20% 50V
C116	1-124-185-00	ELECT 4.7MF 20% 50V
C117	1-161-321-00	CERAMIC 680PF 10% 50V
C118	1-136-157-00	FILM 0.022MF 5% 50V
C119	1-124-184-00	ELECT 3.3MF 20% 50V
C120	1-110-203-00	MYLAR 0.0047MF 5% 50V
C122	1-123-381-00	ELECT 2.2MF 20% 50V
C123	1-123-330-00	ELECT 22MF 20% 16V
C124	1-124-185-00	ELECT 4.7MF 20% 50V
C125	1-107-036-00	MICA 68PF 5% 500V
C126	1-161-318-00	CERAMIC 390PF 10% 50V
C127	1-107-165-00	MICA 56PF 5% 500V
C128	1-136-153-00	FILM 0.01MF 5% 50V
C129	1-110-199-00	MYLAR 0.0022MF 5% 50V
C131	1-136-156-00	FILM 0.018MF 5% 50V
C132	1-136-153-00	FILM 0.01MF 5% 50V
C133	1-123-380-00	ELECT 1MF 20% 50V
C134	1-123-381-00	ELECT 2.2MF 20% 50V
C135	1-123-380-00	ELECT 1MF 20% 50V
C136	1-123-356-00	ELECT 10MF 20% 16V
C137	1-162-282-31	CERAMIC 100PF 10% 50V
C139	1-161-330-00	CERAMIC 0.01MF 30% 25V

## ELECTRICAL PARTS


Ref.No.	Part No.	Description
C140	1-162-282-31	CERAMIC 100PF 10% 50V
C301	1-123-356-00	ELECT 10MF 20% 16V
C302	1-123-356-00	ELECT 10MF 20% 16V
C303	1-123-381-00	ELECT 2.2MF 20% 50V
C311	1-123-356-00	ELECT 10MF 20% 16V
C312	1-129-708-00	FILM 0.0033MF 10% 630V
C313	1-130-291-00	FILM 0.0056MF 5% 100V
C314	1-130-285-00	FILM 0.0033MF 5% 100V
C315	1-130-285-00	FILM 0.0033MF 5% 100V
C316	1-123-381-00	ELECT 2.2MF 20% 50V
C317	1-123-379-00	ELECT 0.47MF 20% 50V
C318	1-123-306-00	ELECT 47MF 20% 10V
C320	1-123-369-00	ELECT 4.7MF 20% 50V
C321	1-123-356-00	ELECT 10MF 20% 16V
C322	1-161-330-00	CERAMIC 0.01MF 30% 25V
C324	1-162-113-00	CERAMIC 0.01MF 30% 16V
C401	1-110-203-00	MYLAR 0.0047MF 5% 50V
C402	1-123-381-00	ELECT 2.2MF 20% 50V
C403	1-162-284-31	CERAMIC 150PF 10% 50V
C404	1-162-284-31	CERAMIC 150PF 10% 50V
C406	1-162-294-31	CERAMIC 0.001MF 10% 50V
C410	1-123-356-00	ELECT 10MF 20% 16V
C411	1-123-356-00	ELECT 10MF 20% 16V
C415	1-123-322-00	ELECT 330MF 20% 16V
C416	1-162-113-00	CERAMIC 0.01MF 30% 16V
C417	1-162-113-00	CERAMIC 0.01MF 30% 16V
C418	1-162-113-00	CERAMIC 0.01MF 30% 16V
C451	1-123-316-00	ELECT 10MF 20% 16V
C453	1-123-352-00	ELECT 1MF 20% 50V
C501	1-123-311-00	ELECT 1000MF 20% 10V
C503	1-123-318-00	ELECT 33MF 20% 16V
C504	1-123-324-00	ELECT 1000MF 20% 16V
C505	1-123-310-00	ELECT 470MF 20% 10V
C506	1-123-318-00	ELECT 33MF 20% 16V
C507	1-123-324-00	ELECT 1000MF 20% 16V
CN301	*1-564-509-11	PLUG, CONNECTOR 6P
CN302	*1-564-505-11	PLUG, CONNECTOR 2P
CN401	*1-564-511-11	PLUG, CONNECTOR 8P
CN404	*1-564-337-00	PIN, CONNECTOR 3P
CN406	*1-564-507-31	PLUG, CONNECTOR 4P
CN407	*1-564-507-11	PLUG, CONNECTOR 4P
CN410	*1-560-280-00	CONNECTOR PIN 3P (SYNC)
CN411	*1-560-039-00	PIN, CONNECTOR (CONTROL S IN)
CN412	*1-560-039-00	PIN, CONNECTOR (CONTROL S OUT)
CN451	*1-564-506-11	PLUG, CONNECTOR 3P
CT101	1-141-225-00	CAP, TUNING, TRIMAR
CT201	1-141-225-00	CAP, TUNING, TRIMAR

## ELECTRICAL PARTS

Ref.No.	Part No.	Description
D101	1-806-967-11	DIODE (LED BLOCK)
D102	1-806-968-11	DIODE (LED BLOCK)
D201	1-806-967-11	DIODE (LED BLOCK)
D202	1-806-968-11	DIODE (LED BLOCK)
D301	8-719-107-94	DIODE 1SS202-1
D302	8-719-107-94	DIODE 1SS202-1
D401	8-719-107-94	DIODE 1SS202-1
D402	8-719-107-94	DIODE 1SS202-1
D406	8-719-107-94	DIODE 1SS202-1
D407	8-719-107-94	DIODE 1SS202-1
D411	8-719-915-51	DIODE GL-9PG4
D412	8-719-919-04	DIODE GL-9PR4
D413	8-719-915-50	DIODE GL-9HY4
D416	8-719-107-94	DIODE 1SS202-1
D419	8-719-910-66	DIODE HZ6B3L
D451	8-719-910-61	DIODE HZ6A1L
D452	8-719-107-94	DIODE 1SS202-1
D501	8-719-910-62	DIODE HZ6A2L
D502	8-719-200-23	DIODE 11E2
D503	8-719-200-23	DIODE 11E2
D504	8-719-200-23	DIODE 11E2
D505	8-719-200-23	DIODE 11E2
F101	1-231-388-00	FILTER, LOW PASS
F102	1-235-186-00	ENCAPSULATED COMPONENT
F201	1-231-388-00	FILTER, LOW PASS
F202	1-235-186-00	ENCAPSULATED COMPONENT
FR501	1-217-422-00	FUSIBLE 1 5% 1/2W F
FR502	1-217-422-00	FUSIBLE 1 5% 1/2W F
HE101	8-825-724-00	HEAD, ERASE EF-201-36
HRP101	8-825-507-80	HEAD (PP227-3602F)
IC101	8-759-912-79	IC IR2E02
IC201	8-759-912-79	IC IR2E02
IC301	8-759-600-02	IC M5218L
IC302	8-752-018-70	IC CX20187
IC303	8-759-600-02	IC M5218L
IC304	8-759-101-55	IC CX10032A
IC401	8-759-204-46	IC TC9310N-071
IC402	8-759-602-47	IC M50761-417P
J101	1-507-909-11	JACK, PIN 4P (LINE IN L)
J102	1-507-909-11	JACK, PIN 4P (LINE OUT L)
J201	1-507-909-11	JACK, PIN 4P (LINE IN R)
J202	1-507-909-11	JACK, PIN 4P (LINE OUT R)
J301	1-507-797-21	JACK, LARGE TYPE (MIC)
J302	1-507-982-11	JACK (LARGE TYPE)(HEADPHONES)
L101	1-408-923-00	MICRO INDUCTOR 8.2MMH
L102	1-408-930-00	MICRO INDUCTOR 33MMH
L201	1-408-923-00	MICRO INDUCTOR 8.2MMH
L202	1-408-930-00	MICRO INDUCTOR 33MMH
M401	X-3319-612-1	MOTOR ASSY, REEL
M402	1-541-239-00	MOTOR
PL451	1-518-563-11	LAMP, PILOT
PM401	1-454-316-00	SOLENOID
PM402	1-454-316-00	SOLENOID
Q101	8-729-811-24	TRANSISTOR 2SD1012
Q102	8-729-900-80	TRANSISTOR DTC114ES
Q103	8-729-606-33	TRANSISTOR 2SC2603F

## ELECTRICAL PARTS

Ref.No.	Part No.	Description
Q201	8-729-811-24	TRANSISTOR 2SD1012
Q202	8-729-900-80	TRANSISTOR DTC114ES
Q203	8-729-606-33	TRANSISTOR 2SC2603F
Q301	8-729-663-47	TRANSISTOR 2SC1364
Q302	8-729-663-47	TRANSISTOR 2SC1364
Q303	8-729-606-33	TRANSISTOR 2SC2603F
Q304	8-729-900-61	TRANSISTOR DTA114ES
Q305	8-729-900-61	TRANSISTOR DTA114ES
Q306	8-729-606-33	TRANSISTOR 2SC2603F
Q307	8-729-117-54	TRANSISTOR 2SA1175
Q401	8-729-900-80	TRANSISTOR DTC114ES
Q402	8-729-900-61	TRANSISTOR DTA114ES
Q403	8-729-900-80	TRANSISTOR DTC114ES
Q404	8-729-900-80	TRANSISTOR DTC114ES
Q407	8-729-800-83	TRANSISTOR 2SB808
Q408	8-729-800-83	TRANSISTOR 2SB808
Q409	8-729-177-43	TRANSISTOR 2SD774
Q410	8-729-177-43	TRANSISTOR 2SD774
Q411	8-729-900-80	TRANSISTOR DTC114ES
Q412	8-729-177-43	TRANSISTOR 2SD774
Q417	8-729-900-80	TRANSISTOR DTC114ES
Q418	8-729-900-80	TRANSISTOR DTC114ES
Q419	8-729-900-69	TRANSISTOR DTA144WS
Q451	8-729-101-02	TRANSISTOR PH102
Q452	8-729-101-02	TRANSISTOR PH102
Q501	8-729-180-93	TRANSISTOR 2SD809
Q502	8-729-606-33	TRANSISTOR 2SC2603F
Q503	8-729-173-13	TRANSISTOR 2SB731
Q504	8-729-117-54	TRANSISTOR 2SA1175
Q505	8-729-811-24	TRANSISTOR 2SD1012
Q506	8-729-800-83	TRANSISTOR 2SB808
R101	1-247-867-00	CARBON 33K 5% 1/6W
R103	1-249-429-11	CARBON 10K 5% 1/6W
R104	1-247-819-00	CARBON 330 5% 1/6W
R105	1-249-434-11	CARBON 27K 5% 1/6W
R106	1-247-871-00	CARBON 47K 5% 1/6W
R107	1-247-843-00	CARBON 3.3K 5% 1/6W
R108	1-247-851-00	CARBON 6.8K 5% 1/6W
R109	1-247-822-00	CARBON 430 5% 1/6W
R110	1-247-847-00	CARBON 4.7K 5% 1/6W
R111	1-247-840-00	CARBON 2.4K 5% 1/6W
R112	1-247-851-00	CARBON 6.8K 5% 1/6W
R113	1-247-827-00	CARBON 680 5% 1/6W
R114	1-249-421-11	CARBON 2.2K 5% 1/6W
R115	1-249-429-11	CARBON 10K 5% 1/6W
R116	1-247-847-00	CARBON 4.7K 5% 1/6W
R117	1-247-863-00	CARBON 22K 5% 1/6W
R118	1-249-421-11	CARBON 2.2K 5% 1/6W
R119	1-249-421-11	CARBON 2.2K 5% 1/6W
R120	1-247-831-00	CARBON 1K 5% 1/6W
R121	1-247-833-00	CARBON 1.2K 5% 1/6W
R122	1-249-421-11	CARBON 2.2K 5% 1/6W
R123	1-247-840-00	CARBON 2.4K 5% 1/6W
R124	1-247-116-00	CARBON 240 5% 1/4W
R125	1-246-529-00	CARBON 220K 5% 1/4W
R126	1-247-700-11	CARBON 100 5% 1/4W
R127	1-246-524-00	CARBON 130K 5% 1/4W
R128	1-247-149-00	CARBON 5.6K 5% 1/4W


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## ELECTRICAL PARTS

Ref.No.	Part No.	Description
D101	1-806-967-11	DIODE (LED BLOCK)
D102	1-806-968-11	DIODE (LED BLOCK)
D201	1-806-967-11	DIODE (LED BLOCK)
D202	1-806-968-11	DIODE (LED BLOCK)
D301	8-719-107-94	DIODE 1SS202-1
D302	8-719-107-94	DIODE 1SS202-1
D401	8-719-107-94	DIODE 1SS202-1
D402	8-719-107-94	DIODE 1SS202-1
D406	8-719-107-94	DIODE 1SS202-1
D407	8-719-107-94	DIODE 1SS202-1
D411	8-719-915-51	DIODE GL-9PG4
D412	8-719-919-04	DIODE GL-9PR4
D413	8-719-915-50	DIODE GL-9HY4
D416	8-719-107-94	DIODE 1SS202-1
D419	8-719-910-66	DIODE HZ6B3L
D451	8-719-910-61	DIODE HZ6A1L
D452	8-719-107-94	DIODE 1SS202-1
D501	8-719-910-62	DIODE HZ6A2L
D502	8-719-200-23	DIODE 11E2
D503	8-719-200-23	DIODE 11E2
D504	8-719-200-23	DIODE 11E2
D505	8-719-200-23	DIODE 11E2
F101	1-231-388-00	FILTER, LOW PASS
F102	1-235-186-00	ENCAPSULATED COMPONENT
F201	1-231-388-00	FILTER, LOW PASS
F202	1-235-186-00	ENCAPSULATED COMPONENT
FR501	1-217-422-00	FUSIBLE 1 5% 1/2W F
FR502	1-217-422-00	FUSIBLE 1 5% 1/2W F
HE101	8-825-724-00	HEAD, ERASE EF-201-36
HRP101	8-825-507-80	HEAD (PP227-3602F)
IC101	8-759-912-79	IC IR2E02
IC201	8-759-912-79	IC IR2E02
IC301	8-759-600-02	IC M5218L
IC302	8-752-018-70	IC CX20187
IC303	8-759-600-02	IC M5218L
IC304	8-759-101-55	IC CX10032A
IC401	8-759-204-46	IC TC9310N-071
IC402	8-759-602-47	IC M50761-417P
J101	1-507-909-11	JACK, PIN 4P (LINE IN L)
J102	1-507-909-11	JACK, PIN 4P (LINE OUT L)
J201	1-507-909-11	JACK, PIN 4P (LINE IN R)
J202	1-507-909-11	JACK, PIN 4P (LINE OUT R)
J301	1-507-797-21	JACK, LARGE TYPE (MIC)
J302	1-507-982-11	JACK (LARGE TYPE)(HEADPHONES)
L101	1-408-923-00	MICRO INDUCTOR 8.2MMH
L102	1-408-930-00	MICRO INDUCTOR 33MMH
L201	1-408-923-00	MICRO INDUCTOR 8.2MMH
L202	1-408-930-00	MICRO INDUCTOR 33MMH
M401	X-3319-612-1	MOTOR ASSY, REEL
M402	1-541-239-00	MOTOR
PL451	1-518-563-11	LAMP, PILOT
PM401	1-454-316-00	SOLENOID
PM402	1-454-316-00	SOLENOID
Q101	8-729-811-24	TRANSISTOR 2SD1012
Q102	8-729-900-80	TRANSISTOR DTC114ES
Q103	8-729-606-33	TRANSISTOR 2SC2603F

## ELECTRICAL PARTS

Ref.No.	Part No.	Description
Q201	8-729-811-24	TRANSISTOR 2SD1012
Q202	8-729-900-80	TRANSISTOR DTC114ES
Q203	8-729-606-33	TRANSISTOR 2SC2603F
Q301	8-729-663-47	TRANSISTOR 2SC1364
Q302	8-729-663-47	TRANSISTOR 2SC1364
Q303	8-729-606-33	TRANSISTOR 2SC2603F
Q304	8-729-900-61	TRANSISTOR DTA114ES
Q305	8-729-900-61	TRANSISTOR DTA114ES
Q306	8-729-606-33	TRANSISTOR 2SC2603F
Q307	8-729-117-54	TRANSISTOR 2SA1175
Q401	8-729-900-80	TRANSISTOR DTC114ES
Q402	8-729-900-61	TRANSISTOR DTA114ES
Q403	8-729-900-80	TRANSISTOR DTC114ES
Q404	8-729-900-80	TRANSISTOR DTC114ES
Q407	8-729-800-83	TRANSISTOR 2SB808
Q408	8-729-800-83	TRANSISTOR 2SB808
Q409	8-729-177-43	TRANSISTOR 2SD774
Q410	8-729-177-43	TRANSISTOR 2SD774
Q411	8-729-900-80	TRANSISTOR DTC114ES
Q412	8-729-177-43	TRANSISTOR 2SD774
Q417	8-729-900-80	TRANSISTOR DTC114ES
Q418	8-729-900-80	TRANSISTOR DTC114ES
Q419	8-729-900-69	TRANSISTOR DTA144WS
Q451	8-729-101-02	TRANSISTOR PH102
Q452	8-729-101-02	TRANSISTOR PH102
Q501	8-729-180-93	TRANSISTOR 2SD809
Q502	8-729-606-33	TRANSISTOR 2SC2603F
Q503	8-729-173-13	TRANSISTOR 2SB731
Q504	8-729-117-54	TRANSISTOR 2SA1175
Q505	8-729-811-24	TRANSISTOR 2SD1012
Q506	8-729-800-83	TRANSISTOR 2SB808
R101	1-247-867-00	CARBON 33K 5% 1/6W
R103	1-249-429-11	CARBON 10K 5% 1/6W
R104	1-247-819-00	CARBON 330 5% 1/6W
R105	1-249-434-11	CARBON 27K 5% 1/6W
R106	1-247-871-00	CARBON 47K 5% 1/6W
R107	1-247-843-00	CARBON 3.3K 5% 1/6W
R108	1-247-851-00	CARBON 6.8K 5% 1/6W
R109	1-247-822-00	CARBON 430 5% 1/6W
R110	1-247-847-00	CARBON 4.7K 5% 1/6W
R111	1-247-840-00	CARBON 2.4K 5% 1/6W
R112	1-247-851-00	CARBON 6.8K 5% 1/6W
R113	1-247-827-00	CARBON 680 5% 1/6W
R114	1-249-421-11	CARBON 2.2K 5% 1/6W
R115	1-249-429-11	CARBON 10K 5% 1/6W
R116	1-247-847-00	CARBON 4.7K 5% 1/6W
R117	1-247-863-00	CARBON 22K 5% 1/6W
R118	1-249-421-11	CARBON 2.2K 5% 1/6W
R119	1-249-421-11	CARBON 2.2K 5% 1/6W
R120	1-247-831-00	CARBON 1K 5% 1/6W
R121	1-247-833-00	CARBON 1.2K 5% 1/6W
R122	1-249-421-11	CARBON 2.2K 5% 1/6W
R123	1-247-840-00	CARBON 2.4K 5% 1/6W
R124	1-247-116-00	CARBON 240 5% 1/4W
R125	1-246-529-00	CARBON 220K 5% 1/4W
R126	1-247-700-11	CARBON 100 5% 1/4W
R127	1-246-524-00	CARBON 130K 5% 1/4W
R128	1-247-149-00	CARBON 5.6K 5% 1/4W

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ELECTRICAL PARTS


Ref.No.	Part No.	Description			
R129	1-247-863-00	CARBON	22K	5%	1/6W
R130	1-247-857-00	CARBON	12K	5%	1/6W
R131	1-247-858-00	CARBON	13K	5%	1/6W
R132	1-247-887-00	CARBON	220K	5%	1/6W
R133	1-247-821-00	CARBON	390	5%	1/6W
R135	1-247-831-00	CARBON	1K	5%	1/6W
R136	1-247-879-00	CARBON	100K	5%	1/6W
R137	1-247-859-00	CARBON	15K	5%	1/6W
R140	1-247-837-00	CARBON	1.8K	5%	1/6W
R141	1-247-815-00	CARBON	220	5%	1/6W
R142	1-249-421-11	CARBON	2.2K	5%	1/6W
R143	1-249-429-11	CARBON	10K	5%	1/6W
R144	1-247-859-00	CARBON	15K	5%	1/6W
R145	1-247-847-00	CARBON	4.7K	5%	1/6W
R146	1-247-879-00	CARBON	100K	5%	1/6W
R147	1-247-861-00	CARBON	18K	5%	1/6W
R148	1-247-878-00	CARBON	91K	5%	1/6W
R149	1-247-879-00	CARBON	100K	5%	1/6W
R150	1-249-429-11	CARBON	10K	5%	1/6W
R151	1-249-429-11	CARBON	10K	5%	1/6W
R155	1-247-841-00	CARBON	2.7K	5%	1/6W
R301	1-247-879-00	CARBON	100K	5%	1/6W
R302	1-247-883-00	CARBON	150K	5%	1/6W
R303	1-247-831-00	CARBON	1K	5%	1/6W
R304	1-247-831-00	CARBON	1K	5%	1/6W
R307	1-247-847-00	CARBON	4.7K	5%	1/6W
R308	1-249-419-11	CARBON	1.5K	5%	1/6W
R309	1-247-773-00	CARBON	3.9	5%	1/6W
R310	1-247-861-00	CARBON	18K	5%	1/6W
R311	1-247-861-00	CARBON	18K	5%	1/6W
R312	1-249-429-11	CARBON	10K	5%	1/6W
R313	1-247-858-00	CARBON	13K	5%	1/6W
R314	1-249-429-11	CARBON	10K	5%	1/6W
R315	1-247-840-00	CARBON	2.4K	5%	1/6W
R316	1-247-847-00	CARBON	4.7K	5%	1/6W
R317	1-247-879-00	CARBON	100K	5%	1/6W
R318	1-247-843-00	CARBON	3.3K	5%	1/6W
R319	1-247-861-00	CARBON	18K	5%	1/6W
R320	1-247-843-00	CARBON	3.3K	5%	1/6W
R321	1-249-429-11	CARBON	10K	5%	1/6W
R322	1-247-815-00	CARBON	220	5%	1/6W
R323	1-247-823-00	CARBON	470	5%	1/6W
R324	1-247-823-00	CARBON	470	5%	1/6W
R401	1-247-872-00	CARBON	51K	5%	1/6W
R402	1-247-863-00	CARBON	22K	5%	1/6W
R405	1-247-841-00	CARBON	2.7K	5%	1/6W
R406	1-247-903-00	CARBON	1M	5%	1/6W
R408	1-247-861-00	CARBON	18K	5%	1/6W
R409	1-247-857-00	CARBON	12K	5%	1/6W
R410	1-247-861-00	CARBON	18K	5%	1/6W
R411	1-247-807-00	CARBON	100	5%	1/6W
R412	1-247-783-00	CARBON	10	5%	1/6W
R425	1-247-831-00	CARBON	1K	5%	1/6W
R426	1-247-831-00	CARBON	1K	5%	1/6W
R427	1-247-821-00	CARBON	390	5%	1/6W
R428	1-247-849-00	CARBON	5.6K	5%	1/6W
R429	1-247-819-00	CARBON	330	5%	1/6W
R430	1-247-831-00	CARBON	1K	5%	1/6W
R431	1-247-831-00	CARBON	1K	5%	1/6W
R434	1-247-863-00	CARBON	22K	5%	1/6W
R435	1-247-815-00	CARBON	220	5%	1/6W
R436	1-247-821-00	CARBON	390	5%	1/6W

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
R437	1-247-821-00	CARBON	390	5%	1/6W
R439	1-247-863-00	CARBON	22K	5%	1/6W
R445	1-247-879-00	CARBON	100K	5%	1/6W
R446	1-247-831-00	CARBON	1K	5%	1/6W
R451	1-247-831-00	CARBON	1K	5%	1/6W
R452	1-247-831-00	CARBON	1K	5%	1/6W
R455	1-247-702-11	CARBON	150	5%	1/4W
R501	1-247-143-00	CARBON	3.3K	5%	1/4W
R502	1-247-125-00	CARBON	560	5%	1/4W
R503	1-247-713-11	CARBON	1K	5%	1/4W
R504	1-247-713-11	CARBON	1K	5%	1/4W
R505	1-247-718-11	CARBON	2.7K	5%	1/4W
R506	1-247-713-11	CARBON	1K	5%	1/4W
R507	1-247-713-11	CARBON	1K	5%	1/4W
R508	1-247-133-00	CARBON	1.2K	5%	1/4W
RV101	1-230-713-21	RES, VAR, SLIDE 20K/20K (REC LEVEL)			
RV201					
RV102	1-228-994-00	RES, ADJ, CARBON 10K (RECORD LEVEL L)			
RV104	1-228-994-00	RES, ADJ, CARBON 10K (PLAYBACK LEVEL L)			
RV202	1-228-994-00	RES, ADJ, CARBON 10K (RECORD LEVEL R)			
RV204	1-228-994-00	RES, ADJ, CARBON 10K (PLAYBACK LEVEL R)			
RY301	1-515-547-11	RELAY			
S301		(DOLBY NR B/C)			
S302		(DOLBY NR ON/OFF)			
S303	1-570-252-11	SWITCH, PUSH (5 KEY)(TYPE I NORMAL)			
S304		(TYPE II CrO2)			
S305		(TYPE IV METAL)			
S402	1-553-856-00	SWITCH, KEY BOARD			
S403	1-553-856-00	SWITCH, KEY BOARD			
S405	1-554-303-21	SWITCH, KEY BOARD (REC)			
S406	1-554-303-21	SWITCH, KEY BOARD (FWD)			
S407	1-554-303-21	SWITCH, KEY BOARD (REW)			
S408	1-554-303-21	SWITCH, KEY BOARD (FF)			
S409	1-554-303-21	SWITCH, KEY BOARD (PAUSE)			
S410	1-554-303-21	SWITCH, KEY BOARD (RECORD MUTE)			
S411	1-554-303-21	SWITCH, KEY BOARD (STOP)			
S451	1-552-412-00	SWITCH, KEY BOARD (MEMORY)			
S452	1-552-412-00	SWITCH, KEY BOARD (RESET)			
S501	1-570-103-11	SWITCH, PUSH (1 KEY)(POWER)			
T301	1-433-298-11	TRANSFORMER, BIAS OSCILLATION			
T401	1-448-155-11	TRANSFORMER, POWER			
X401	1-527-532-00	OSCILLATOR, CERAMIC			

ACCESSORY & PACKING MATERIAL

Part No.	Description
3-318-958-01	CUSHION (LEFT), LOWER
3-318-959-01	CUSHION (RIGHT), LOWER
3-318-960-01	CUSHION (LEFT), UPPER
3-318-961-01	CUSHION (RIGHT), UPPER
3-318-988-41	INDIVIDUAL CARTON
*3-703-895-01	LABEL, COLOR
*3-703-906-01	LABEL, COLOR
4-876-352-00	SHEET, PROTECTION

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